CONDENSED REPORT OF A

Lecture

ON

TUBERCULOSIS AND TABES MESENTERICA.

Delivered before the Hon. the Grocers' Company in the University of London, July 9th, 1888,

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THE lecturer began: "Sir James Paget and Gentlemen,—When the Hon. the Grocers' Company did me the honour of electing me to one of their scholarships, I set out with a light heart and bright anticipations to continue some researches on the subject of Tuberculosis in general, and Pulmonary Phthisis in particular, which I had initiated some little time before. Under the influence of my teachers in the Edinburgh school, and under the inspiration of the researches of Koch (which had so recently been published), Burdon-Sanderson, Wilson Fox, Baumgarten, Klein, and others, whose works I was reading, I aspired to go into the whole subject of tuberculosis. Since that time my ideas, I need hardly say, have assumed less ambitious proportions, the area of my investigations has been considerably limited, and I have been content to take one or two points for consideration in the first instance, leaving the remainder for further investigation as time and opportunity offer. In the present lectures I shall attempt to give an outline account of part of the work on which I have been engaged during the last two years. I say part of the work, for I intend to leave the experimental work, except where absolutely necessary for purposes of elucidation, for further consideration. The subjects of tuberculosis and phthisis have, from earliest times, received the attention of our best observers, and in this country, where the conditions are specially common, much has been written, and many most valuable treatises have come from the pens of these observers. With all this, however, the intimate connexion between certain conditions was never made clear until we had Koch's detailed experiments on tubercle as a point from which to start further observations."

He then went on to point out that the presence of tubercle nodules, though latent, in any part of the body, now comes to have a much greater significance than formerly, as each mass of tubercle, whether recent or caseous, must be looked upon as a focus from which invasion of any part of the body may take place. It was with this in view that he was led to make a most careful examination of all the material that fell into his hands, to see what light could be obtained on the subject.

Writing recently on the subject of phthisis, Dr. James pointed out that the "general mortality is excessive at birth, rapidly diminishes till about the fifth year, more gradually till about the fifteenth, and then first slowly and then rapidly rises to the end; the phthisis mortality shows during the early years of life a comparatively low rate, a rapid rise from fifteen to twenty-five, and then a somewhat gradual decline." During the first five years of life he believes that errors of diagnosis are specially common, but all the errors tend to an under-statement rather than to an over-estimation of the number of deaths from tuberculosis of some form or other.

As an outcome of the whole of the more recent observations, tuberculosis has come to be looked upon as the result of a specific morbid irritant, acting on tissues which are so far devitalised that they are not able to cope with this irritant. Although Metschnikoff's views on this subject have been referred to, especially in connexion with the more acute specific infective diseases, it never seems to have been fairly grasped except by those who have made a careful and special study of tuberculosis, that what holds good in the case of micro-organisms in the more acute specific diseases may be equally true as regards the action and reaction of the bacillus tuberculosis and the tissues in the human body; that the battle of the cells and bacilli may go on as really and as continuously in the case of tubercle as it does in a localised anthrax or in a suppurating wound; and that the conditions for the development of the tubercle bacillus in the human or animal body must be just as definite and as favourable to the existence of that bacillus as they must be to the development of the organisms of pyæmia or allied processes. Of these conditions the lecturer mentioned the following—(*a*) Some weak point in the epithelial surface at which the organisms, now generally admitted to be the cause of tuberculosis, may invade the deeper tissues in sufficient numbers to be able to hold their own in the struggle for supremacy that ensues. (*b*) The comparatively low vitality of these deeper tissues, the cells of which they are composed being no longer able to deal successfully with any large number of bacilli that can under ordinary circumstances find their way so far. It should be borne in mind that, although tubercle bacilli are so widely disseminated, they are under ordinary conditions seldom present in sufficient numbers in the atmosphere to render them in any way formidable to any but the most unhealthy (as regards tissue resistance) individuals. It was pointed out that it is a matter of common observation that tubercle affects different organs at very different periods of life; or, at any rate, that in tuberculosis certain organs are more frequently affected, and at an earlier period of the disease, than are the rest. For example, tubercular meningitis occurs much more frequently between the third and the eighth years than it does at any other period of life. Rilliet and Barthez give the results of the examination of 98 cases of this condition. They state that during the first year there were only 2 cases; between one and two years and a half, 17; from three to five years and a half, 34; from six to seven years and a half, 23; from eight to ten years, 15; and from eleven to fifteen years, 7 cases.

Of 54 cases of tubercular meningitis examined by the lecturer, not one was under one year (adopting the same classification); between one and two years and a half there were 15; from three to five years and a half, 21; from six to seven years and a half, 8; from eight to ten years, 8; and from eleven to fifteen years, 2. These figures corresponded fairly closely, and might serve as a basis for comparison. In these 54 cases, tuberculosis was in 39 so widely disseminated that it might fairly be said to be general; in only 2 cases could no primary centre of infection be found. In 6 the only foci that could be primary were to be found in the lymphatic glands of the mediastinum alone or along with those of the mesentery; in 3 the lungs were the only other organs affected; and in 1 the lungs and mediastinal glands contained the older tubercle nodules.

In the brain or in its membranes, the embolic tuberculosis must be looked upon as part of a general process. Intestinal tubercle, it was stated, is said to be most common in the years following childhood from twelve upwards for six or seven years. From an analysis of 127 cases of tuberculosis in children it was found that in 43 instances there was tubercular ulceration of the intestine. During the first year after birth there was only 1; between one and two years and a half, 14; from three to five years and a half, 10; from six to seven years and a half, 7; from eight to ten years, 5; and from eleven to fifteen years there were 6. So that in this series of cases the intestines are frequently affected during very early life as well as in somewhat later years. Although the intestines are directly affected by tubercle in such a small proportion of cases, the mesenteric glands are found to be in some stage or other of tubercular degeneration in no less than 100 instances, or in nearly 79 per cent. of the whole. This was considered to be a point of sufficient importance to be worthy of special note. The age at which these tubercular glands in the mesentery were found is also significant. During the first year of life there were 4 cases; from one to two years and a half, 33; from three to five years and a half, 29; from six to seven years and a half, 12; from eight to ten years, 13; and from eleven to fifteen years, 9 cases. Here, again, the figures are higher during the earlier periods than during later years, but the maximum is reached (as with ulceration of the intestine) at a distinctly earlier period than in the case of tubercular meningitis. In 14 cases the glands only were affected—i.e., there was no tubercle found in any other part of the body. In these cases the glands had become calcified, but in the others the structure and degeneration of the glands were tubercular, bacilli were very few in number and in some cases could

not be demonstrated, and the nature of the mass could only be determined by inoculation experiments. Here, again, the second and third periods account for more than all the others together, 5 and 4 from one to two and a half years and from three to five and a half years, against 5 for the other four periods (1 under one year; 1 between six and seven and a half years; 2 from eight to ten years; and 1 from eleven to fifteen years). These 14 cases were accompanied by neither ulceration nor cicatrisation of the intestine; there was no peritonitis, and secondary tubercle could be found in no other parts of the body, so that the tuberculosis of the mesenteric glands must be looked upon as the primary lesion. Continuing the analysis, it was found that in this 100 cases the glands at the root of the lung are simultaneously affected in 69 cases, and in 62 the lungs were also affected; in 13 there was tubercular peritonitis, and in 18 ulceration of the intestine was also found. Of the remaining cases, 4 had tubercular peritonitis and 4 ulceration of the intestine. In 12 cases the mesenteric and mediastinal glands, the peritoneum, the intestine, and the lungs were all affected; whilst in no fewer than 53 of the 100 cases there was evidence of localised peritonitis, recent or old, occurring between the spleen or liver and the diaphragm. Of the whole 100 cases, only 20 were diagnosed as having abdominal tubercle, and this 20 would be considerably reduced were the doubtful diagnoses eliminated. In these cases, then, the symptoms associated with tubercle in other organs are so predominant that the tubercle in the abdomen was practically overlooked. Dr. Goodhart, speaking of this condition, says: "Caseous or tubercular disease of the mesenteric glands is not uncommon; nevertheless, it is rare indeed in comparison with the consumption of the bowels which is so often heard of in the dwellings of the poor. From a large out-patient department of the Evelina Hospital during several years, and when at least 6000 or 7000 children must have come under observation, and probably considerably more, I have only notes of 46 cases, and half of these were but of doubtful nature. Some few others are to be associated with phthisis, but as a substantive ailment we might have supposed it to be more common than it is." And Professor Gairdner, in his Lectures to Practitioners, draws attention to the fact that as pathological descriptions can deal with fatal cases only, a far too grave prognosis is arrived at in cases of tabes, and that consequently many cases of tubercular disease, not only of the mesenteric glands, but also of the peritoneum, recover, only the more grave cases succumbing. It is evident from all this that tubercular conditions of the abdomen are much more common than can be inferred even from the figures above quoted, where only one-fifth of the real number are stated in the diagnosis charts to be suffering from abdominal tubercle. That there is a great tendency towards calcification and cicatrisation, especially where the tissues have a high resistant power, is well known to all pathologists, who constantly find cicatrices which are to be recognised as of tubercular origin (by the presence of small caseous or calcareous nodules, &c.), in which, however, the tubercle has become quiescent. These are the result of local tubercular changes, the localisation being due to the activity of the tissues.

In the Registrar-General's Supplement, 1871-80, a most interesting summary is given of the deaths from tubercular diseases. The death-rate from phthisis in the years 1851-60 was 1305 per million; from tabes mesenterica and scrofula, 1920. In 1861-70 the figures are 968 for phthisis, 2213 for hydrocephalus and tubercular meningitis, and 2267 for tabes mesenterica and scrofula; whilst in 1871-80 the figures are 767, 1800, and 2550. The differences in the proportions between these figures in the various years might be due in part to more accurate diagnosis, but in part they are to be accounted for by the increase in the death-rate from tabes. Including, as these cases do, the diagnosis of physicians both skilled and unskilled, it would appear from the results of post-mortem examination of the cases described that the last group might safely be multiplied by five to give the actual number of cases in which the mesenteric glands were affected, giving no less than 12·75 per 1000 as the rate of disease. If, in addition, those cases are taken in which the tubercular is followed by a reparative process, the numbers must be enormously greater.

It had already been noted that the maximum affection by mesenteric tubercle is attained between one and five years, whilst in tubercular meningitis the maximum is attained between three and seven, amongst the cases of tubercular meningitis being included, of course, those cases in which there is also mesenteric tubercle. This fact, taken in connexion with the very large percentage of all tubercular cases (in children) in which mesenteric disease is developed, points very decidedly to the supposition that in these tubercular glands is the primary lesion in the body. Further, on examination of the statistics of these cases it is found that in 69 of the 100 cases of mesenteric tubercle the glands at the roots of the lungs are tubercular (the glands at the root were tubercular in 27 cases in which the mesenteric glands were not affected); but in by far the larger proportion of these cases, the tubercle in the lung is of more recent growth—i.e., caseation and calcification are not so frequently met with. On the other hand, taking the cases of lung tubercle altogether, it is found that the proportion of cases of early tubercle (catarrhal pneumonic and grey miliary or racemose tubercle) to older caseous tubercles or where cavities are formed, is as 36·3 to 63·7 per cent.

In what way can the causation of mesenteric tubercle in children at these ages be explained? In the class from which the patients in the Royal Hospital for Sick Children are drawn, the infants are during the first year of life, and sometimes longer, suckled at the breast, but afterwards the diet is extremely mixed; as a rule it is very unsuitable, but of course it is almost invariably partially composed of milk. It is after this first year that there is such a rapid rise in the number of cases in which the mesenteric glands are affected.

Although tubercle in the human subject is so frequently met with in young married women, tubercular mammitis is extremely rare; eight cases have, however, been collected and recorded by Dr. O. Hubermaas.[1] In cattle, on the other hand, where the mammary gland carries on its functions under conditions which are far from healthy, or at any rate far from normal, tuberculosis is not by any means of rare occurrence. The first experiments from which actual proof of the infective nature of tubercular material was obtained were performed by Gerlach, who used the milk of tuberculous cows as the material with which he fed young animals. His results were not all positive, but he was successful in a sufficient number to justify his conclusion that there was some specific virus in the milk of tuberculous cows, which would when ingested produce tuberculosis of the alimentary tract or mesenteric glands. Albert then recorded the case of a litter of young pigs, which were fed on the rejected milk from a tuberculous cow, the whole of the animals succumbing to tuberculosis.

Numerous other observers—Klebs, Bollinger, Stein, Johne, Bang, Toussaint, Chauveau, and many others, besides Koch—concur in stating that if milk from cattle with tubercular udders be given for any lengthened period tuberculosis will be developed. At the International Medical Congress in Copenhagen, Bang gave the results of an examination of no fewer than 27 cases of tubercular mammitis, and he was able to demonstrate the presence of tubercle bacilli in the milk or in the sediment, and with this milk or sediment he was able to produce tuberculosis both by inoculation and by ingestion. Nocard was able to demonstrate the presence of the specific bacillus in milk in 11 cases.

The lecturer then gave an account of a most careful and systematic examination of over 600 cows in the Edinburgh dairies, which he, along with Professor McFadyean, had carried out. Of the whole, they found 37 beasts in which there was mammitis, but only 6, or 16 per cent., in the milk of which they could demonstrate the presence of tubercle bacilli, and then only in small numbers. In 1 of the 6 cases, and subsequently in 5 other cases, they made sure of the existence of the bacilli in enormous numbers in the udder by microscopic examination. They find that new tubercular tissue is disseminated in patches of various sizes throughout a portion of the gland, and that all the more minute elements of tubercle may be distinguished—the small round cells in which the nuclei are comparatively large, and the epithelioid cells, between or amongst which is a fairly well developed reticulum. The giant cells are very numerous, but are not so well defined as one sees them in the human subject; they are scattered throughout the new tissue. The tendency to caseation of tubercle in the udder is not nearly so well

[1] Beitrage zur Klin. Chir. Mitth. aus der chir. klinik zu Tubingen Band ii., Heft 2.

marked as in other parts of the body, but it does undoubtedly occur at points. The new growth of tuberculous tissue gradually invades the lobules of the gland, passing in along the lines of the lymphatics of the interlobular septa, so that a gradual transition from the healthy gland substance to the dense tubercular mass may be seen. In the mass itself the characteristic bacilli are present in almost inconceivable numbers. They are seen first as small stained rings (masses of bacilli) around a slightly granular or homogeneous mass—in fact, the giant cells seem to consist of the débris of cells, the result of the activity of the bacilli. In the smaller cells bacilli may also be seen, and others may be demonstrated lying in the spaces between the cells. On careful examination of the more healthy parts of the gland, especially at the margin of the new growth, ulceration into the ducts may be made out. In consequence of the interference with the nutrition of the tissues immediately around the ducts or acini, the basement membrane has given way and a small mass of tubercular granulation may be seen projecting into the lumen; the epithelium is also proliferating. In the granulation tissue, in the epithelial cells, and even lying free in the lumen, there are frequently numerous bacilli, and it can be easily understood how, once in this position, they find their way into the milk. This ulceration is not, however, of such frequent occurrence as might be expected, for in the greater part of the gland substance left there is little or no catarrhal proliferation, and the ducts and acini appear to be obliterated in great measure by compression. The lecturer pointed out that in connexion with this it would suggest itself to most of those who examined carefully the sections exhibited that what are called giant cells may in reality be nothing more than acini or ducts in which the bacilli have attacked and destroyed the epithelium. This idea would be greatly strengthened if some of the larger ducts were examined, for in these similar degenerative changes of the epithelium could be seen; in this epithelium bacilli could be demonstrated, and in the lumen itself there are frequently similar granular or homogenous masses in which a few bacilli may be seen. In addition to these positions, bacilli could be demonstrated in epithelial cells still attached, and also in rare cases in those lying free in the apparently healthy milk ducts, in which position Professor McFadyean had first demonstrated them. These facts, when considered along with the occurrence of bacilli in milk, with the feeding experiments recorded by so many observers, and the great prevalence of tubercle in certain classes of animals, go far to prove, he thought, that milk is a source of tubercular infection, especially to young children. He referred to the cases constantly cropping up in which pigs on dairy farms are affected with tuberculosis of a most typical character, and mentioned an outbreak (amongst pigs) on a dairy farm which could be distinctly traced to the milk of three cows in which the udders were markedly affected. It is a curious and significant fact, he observed, that all veterinary authorities concur in stating that cattle and swine are the two species in which genuine tuberculosis most frequently occurs. When it is remembered that on all dairy farms, and even on farms where pedigree cattle (cattle which are very frequently highly tubercular) are reared, the milk, especially that of cows suspected of disease, is given to the pigs, which often become tuberculous, it will appear in the light of recent researches that the disease is *propter hoc* rather than, as so many still hold, merely *post hoc*. It has often been objected, of course, that, if all tuberculous cattle gave tubercular milk, the human race would run a risk of being rapidly exterminated; but it might now be maintained, as the result of most careful clinical observation, that it is only when the functions of the intestine are interfered with, and when, in consequence, there are temporary or permanent alterations in structure and in the chemical constituents of the fluids and gas in the alimentary canal, that tubercle bacilli can make their way unaltered through the epithelial barrier. The importance of Koch's experiments on anthrax and cholera bacilli, when ingested, cannot be over-estimated, and most of those who have followed him in this line of experimentation have come to the same conclusions on this point, however widely they may differ on others. It is not only the intestine itself, however, that is affected by these functional disorders. The mesenteric glands are also placed at a great disadvantage. This may be easily understood when it is remembered how the slightest irritation in any position is almost immediately followed by changes in the lymphatic channels and glands. Everyone is familiar with the peculiar condition of enlargement, congestion, and succulence that is found in such glands. This condition must be looked upon as the result of stimulation; the cells are roused into greater activity, they proliferate more rapidly, and take up the foreign matter; the gland as a whole acting as a kind of vital sieve. In this process, however, the store of resistant energy, if such a term might be used, is gradually diminished, and should tubercle bacilli find their way into the gland during or shortly after this extra stimulation, they run less risk of being destroyed by active epithelioid and lymph cells than when these cells are not already partially exhausted. This is true in greater degree only in the glands than in the other tissues. Everyone engaged in practice could recall the numerous cases in which tubercular disease of bone, of synovial membranes, &c., has followed on measles, scarlatina, small-pox, and similar conditions, or in which an attack of typhoid or intestinal mischief of some form had been looked upon as marking the date, soon after which serious tubercular mischief was developed. All this should be considered, leaving out of account the fact that healthy glands might find it difficult to cope with any large number of bacilli finding their way through the unhealthy surface. It should be borne in mind, also, that during the growth of the individual these glands are, under normal conditions, called upon to do much more work than during later life, owing to the fact that in the building-up process in the body there is excess of nutritive material required for the tissues, in consequence of which the secondary digestional function, which the lymphatic system performs, is severely taxed. Under normal conditions this is provided for, but in imperfectly and badly nourished children this is not the case. In the first instance, then, the glands act as vital filters, but, should the stimulation be too great, there comes a period at which they are destroyed; they degenerate, and may become encapsuled in fibrous tissue, or they may suppurate and so become foci from which other areas are affected. Where this sequence is preserved there is a still further danger at the second stage. So long as the gland is active, the irritant material passed along to it is so modified that it is removed almost inert, but as soon as the degeneration sets in the area connected with that gland is much more liable to ulceration, especially in the case of children.

As regards the identity of the bacillus tuberculosis in man and cattle, the lecturer said that he felt compelled to arrive at a conclusion directly at variance with that of Klein, and in accordance with that of Koch, Bland Sutton, Watson Cheyne, and numerous other workers, that any differences there may be between the size, manner of growth, and position of human and bovine tubercle bacilli are not sufficient to constitute a specific or even a varietal difference. As a matter of fact, these differences he found it impossible to detect, and stated that he had observed quite as great differences in size between the bacilli under the same cover glass from sputa of a phthisical patient as he had been able to detect between those taken from a cow and those from the human subject. In confirmation of this he handed round photographs, placed at his disposal by Drs. Troup and Edington, of bacilli in sputa, in which it could be seen that some are at least one-third, or even one-half larger than others (just the proportions mentioned by Klein). As regards position, he directed attention to the specimen of tuberculous udder (microscopic), in which were tubercle bacilli, some embedded in epithelial cells, and others lying singly in the spaces between the cells. The only point on which he could agree with Klein was as regards the granularity, and this he believed could be accounted for, not by any specific difference, but rather by the temperature at which the two forms are developed.

Klein's experiments and observations, by which he proved that fowls may be successfully inoculated with tubercle taken from a human subject, that in the same way one can inoculate from a guinea-pig to a cow, but that when it is attempted to inoculate from a cow to fowls the results are negative, were then spoken of, and in connexion with this Koch's statistics concerning the temperature at which tubercle bacilli can be successfully cultivated were quoted. Koch states that between 86° and 105° F. tubercle bacilli grow, but that outside these limits it is exceedingly difficult to obtain a luxuriant growth. If, then, the power of growth, the activity, and virulence of bacilli can be, even to a slight extent, modified by altering the temperature when they are growing outside the body, is it not probable that they may be equally modified within the body? and when it is

remembered that in the cow and pig the temperature is from 101° to 102°, in the calf 103°, in the horse 101°, and in the hen 104° to 105°, it could be readily understood that a very slight rise in temperature in these animals might modify very considerably the power of propagation, and indirectly also the virulence of the bacilli. He did not think either that Klein's statement, that "it is not experimentally proved that human beings can contract human tuberculosis by feeding on milk and flesh derived from tuberculous animals," could be backed by clinical experience and pathological evidence, both of which appear to be greatly in favour of the identity of the virus in the two subjects. It is of course impossible to bring direct experimental proof to bear in the case of the human subject, but the indirect evidence recently adduced by various continental observers and the examination of series of cases, such as those to-day brought forward, should be very strong evidence indeed that in children, especially in those who are subject to the wretched hygienic treatment and bad feeding to which unfortunately so many of our poorer-class children are exposed, tuberculosis may be contracted as the result of the ingestion of milk from tuberculous udders.

Some of the difficulties which at present stand in the way of dealing in any adequate manner with tuberculous cattle were then mentioned and commented upon. It was well known among cattle breeders that in many cases the animals may be in an advanced stage of tuberculosis and still be what they call "prime fat." When making the observations on tubercular mammitis, Professor Mc Fadyean and he had found that the udder might be tuberculous (proved by microscopic examinations) without the slightest falling off in the general condition of the animal. It was also found to be an exceedingly difficult matter to determine whether they were dealing with a simple or a tubercular mammitis. In some instances they were aided by a consideration of the history of the disease; but very frequently, on the other hand, no history was to be obtained, the animals being brought in shortly after calving for the sake of their milk supply, and coming from all parts of the country, from Denmark, and elsewhere. In spite of what Bang and others had taught, they found that the only reliable method of detecting the tuberculous disease was by staining specimens of milk for the tubercle bacilli. Then, too, it was an exceedingly difficult matter to control the treatment during the life of the cattle which are to give our milk supply. From Denmark alone, in which country the veterinary profession has demonstrated the extreme frequency of tuberculosis in cattle, and where tuberculosis of the udder was first thoroughly described and the presence of tubercle bacilli in milk first systematically demonstrated, we get no less than one million pounds sterling worth of cattle annually, and from Hamburg and other ports we also derive a considerable number of cattle which, in coming to this country, especially in stormy weather, battened down in the badly ventilated hold of a steamer, are undoubtedly in some cases infected by a few tuberculous animals in the cargo. In Copenhagen the late Professor Panum, Herr Bille (formerly Danish Minister in America), and Dr. Borch considered the matter of the milk supply so important that they allowed themselves to be appointed a Committee of Control to the Copenhagen Milk-supply Company. This committee shortly after last February declared, with Professor Bang, that tuberculosis of the udder is not difficult of detection, and that a diagnosis can be made at a very early stage of the disease, as it presents so many marked characteristics. From the experience as above stated, the lecturer would be somewhat inclined to doubt this statement, more especially as Bang, in a paper on "Tuberculosis in Domestic Animals," read before the Copenhagen Medical Society on Feb. 28th last, stated that the milk from cattle affected with pulmonary phthisis contained bacilli, even when the udder was not in any way affected. Unless the udder was examined most carefully after death, there could be no proof of this. It was pointed out that the development of the disease in the udder is extremely rapid, and that an early diagnosis is imperative if the great danger that would arise from mixing the milk from affected cows with the milk of healthy cattle is to be avoided. In consequence of this report the Control Committee advised the directors of the Milk-supply Company to order a fortnightly examination by a veterinary surgeon of all cows supplying milk to their company; this examination to include a most careful inspection for tuberculous udders. When will some such course be adopted in this country?

ABSTRACT OF THE
Croonian Lectures
ON
ANTIPYRETICS.

Delivered at the Royal College of Physicians,

By DONALD MAC ALISTER, M.A., M.D., F.R.C.P.,
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LECTURE IV.

IN the cases of typhoid fever investigated with so much care by Riess, the effect of antipyrin had been to diminish the total excretion of nitrogen from 15 to 30 per cent. Müller reported a case in which the urinary nitrogen was diminished by 28 per cent. on days when the pyrexia was suppressed by antipyrin, as compared with alternating days when it was allowed to rise unchecked. Engel, again, found the diminution, in similar circumstances, to be from 16 to 25 per cent. The agreement in these and other similar results appeared to establish the fact that in typhoid at least antipyrin exercised a constant influence in diminishing the metabolism of the nitrogenous tissues. It might be argued that the effect was not primary, but simply followed the lowering of febrile temperature. Umbach and others had accordingly made careful estimations of the effect of the drug on persons in health. By adopting a uniform diet for many days together Umbach brought about in himself a condition of nitrogenous equilibrium, and then took full doses of antipyrin on certain days. One series of observations extended over fourteen days, another over six days. The results were accordant, and showed that on the antipyrin days the nitrogen excreted was less by some 10 per cent. than on the normal days. This was due to diminished production of nitrogenous waste, not to retention, for on the days following the use of the drug the excretion gained its ordinary level and no more. There was thus good ground for the belief that in fever the lowering of temperature was a secondary phenomenon, the lowering of nitrogenous excretion a primary one.

The effect of antipyrin on perspiration was next considered. Too much importance had probably been attributed to the production of sweating as a thermolytic process in discussions in fever and its treatment. Profuse sweating was compatible with high temperature, as was seen in rheumatic and septicæmic fevers. The absence of sweating did not necessarily result in pyrexia from heat retention. The high temperature of fever was not reduced appreciably when the injection of pilocarpine gave rise to abundant sweating; sometimes it actually rose. Though in many cases antipyrin was followed by sweating, this did not sufficiently explain its cooling effect. Sometimes the sweating did not appear; it could be artificially suppressed by the simultaneous administration of atropine, yet the temperature fell notwithstanding. In certain cases of phthisis with colliquative sweating, the lecturer had seen antipyrin lower the hectic temperature and at the same time check the sweats, to the great comfort of the patients. Moreover, if the temperature of a fever patient be taken continuously, or at intervals of ten or fifteen minutes, it is occasionally observed that the fall of temperature begins before the perspiration appears.

Turning to the effect of the drug on the circulation, the lecturer recalled Dr. Wood's observation, that its thermal effect was independent of any measurable effect on the circulation. Demme of Berne, one of the first inquirers into the physiological action of antipyrin, stated that when very large doses were administered to animals, doses very much greater in proportion than any used in therapeutics, the first effect was to raise the blood pressure, the second to lower it. Ultimately the heart showed signs of paralysis, and then another dose of antipyrin failed to raise the pressure again. On the isolated heart, antipyrin, circulating with the blood in full doses, produced the effect of relaxation or paralysis; but if pure blood, or blood containing caffeine, were sent through it, the heart recovered per-

fectly. The net effect of the first rise of pressure and the subsequent fall might be apparently zero, as Wood had found.

The effect of therapeutic doses on man was then described. The effect on the pulse of fever patients was, in general, to slow the rate as the temperature fell. But this did not always happen. Sometimes the pulse kept at its febrile rate in spite of the lowering of temperature. The experience of Reihlen at Nürnberg, gathered from 90 cases, and that of Welt in Zürich from 120, was not quite in accord in this matter, and the inference was that though the heart was generally slowed by the drug, this result depended on various other factors and was not invariable. In some cases the lecturer had found that the pulse became slower before the temperature began to fall, arguing that an influence was at work other than the mere cooling of the blood. As regards the quality of the pulse, it was almost always found that the arterial tension rose somewhat after a dose of antipyrin; sphygmographic traces confirmed the impression conveyed to the finger. But there was no certain relation between the thermal effect produced and the strengthening of the pulse, and sometimes the pulse was unmistakably softer, even though the other symptoms were improved. A good deal, no doubt, depended on the initial condition of contraction in which the radial artery stood when the dose was taken. As was well known, this condition was in fever somewhat irregular.

Summing up the results so far enumerated, it appeared that antipyrin increased skin radiation, diminished the difference between peripheral and central temperature, lowered the temperature as a whole, diminished thermogenesis, diminished the production of nitrogenous waste and therefore nitrogenous metabolism, and frequently, but not always, increased perspiration, while it generally slowed the heart and slightly increased the tension of the radial artery. Before attempting to seek a physiological explanation of these various actions, it would be well to consider some other effects of antipyrin less obviously related to the thermal economy.

It had been found that large doses of antipyrin, subcutaneously injected, gave rise to clonic convulsions, succeeded by tonic spasm or rigidity, and by paralysis. But if the sciatic and crural nerves of one limb were first divided, the muscles of that limb remained free from convulsions. Smaller doses injected into one limb appeared to produce a diminution of sensibility in that limb, and sometimes also in the opposite one—at least, the response to ordinary irritations and stimuli was feeble or absent. Sée, who describes this result, speaks of it as if the effect were merely anæsthetic or analgesic. If the sciatic of the injected side be stimulated electrically, the contractions of the other limb are very slow and limited; they seem to be performed with difficulty. This he attributes to the enfeeblement of the sensory nerves of one side, and to diminished conductivity of the reflex arc through the cord to the other side.

Chouppe last year communicated to the Société de Biologie some results concerning a peculiar antagonism between antipyrin and strychnine which were instructive. Strychnine, as everybody knew, appeared to increase greatly the excitability of the sensory nerves and the cord, without affecting the muscles directly. A slight stimulus was enough to throw the muscles into general convulsions, and it was said that the conductivity of the reflex arcs was augmented. If antipyrin were first injected into a vein, the subsequent injection of strychnine failed to produce its characteristic effects. A dose of antipyrin large enough to induce clonic spasms, however, did not prevent the strychnine convulsions from appearing, though they did not prove fatal. If strychnine were first injected and produced its poisonous effects, antipyrin diminished these, and sometimes the clonic spasms of antipyrin displaced the strychnine convulsions.

The striking effect of antipyrin in abolishing pain of a neuralgic character was alluded to, and the lecturer gave his experience of its marked anodyne influence in such affections as the "lightning pains" of tabes, cancer, otalgia, rheumatoid arthritis, supra-orbital neuralgia, &c. Hypodermic injections of antipyrin were with many physicians taking the place of morphine for the simple allaying of pain. In France, where the name "antipyrin" was patented, it was proposed to compete with the German production of the drug by manufacturing it under the name of "analgesin." Another condition in which it had an excellent effect—some called it a specific action—was megrim. In his own person he had found that nothing acted so promptly or so certainly in averting or assuaging the paroxysm.

It was now time to attempt to give some general explanation of these several effects. It was not enough to say with Demme that antipyrin in large doses was a general protoplasmic poison. That was true of many alkaloids and other substances when administered in sufficiently large amount. We must try to discriminate the special action of therapeutic doses. The remarkable progression in the effects on the muscles, as already described, suggested to his mind a more promising explanation. After small doses there was an appearance of apparently diminished excitability; stimulation induced only slow or difficult contraction of the muscle. Larger doses seemed to induce increased excitability, and spontaneous contraction or clonic spasms followed, then rigidity and paralysis. He thought the first decrease of excitability was due, not to a numbing action, but to stimulation of the inhibitory muscular nerves or tracts in the cord. The existence of such nerves, from reasons explained in the Gulstonian Lectures, Dr. Gaskell's work justified us in accepting. The muscles contracted with difficulty because of the intense stimulation of the inhibitory fibres. Intense stimulation was followed by exhaustion and paresis, and the motor nerves then acted without check. This accounted for the peculiar spasms, and when by them the motor nerves were in turn exhausted rigidity and paralysis were the result. The mutual influence exerted by antipyrin and strychnine bore out this explanation. The convulsions of strychnine he believed to be due to paralysis or at least paresis of the inhibitory nerves. That view accorded better with the facts than any other. The appearance of increased excitability was the expression of the unchecked activity of the motor nerves and tracts in the cord. Antipyrin stimulated the inhibitory mechanism, and so at first antagonised strychnine. But if the dose of antipyrin were excessive the inhibitory influence might become exhausted or paretic, and then the signs of strychnine poisoning made their appearance.

Passing from the nerves to the brain, the diminution of thermogenesis and of nitrogenous catabolism, healthy as well as morbid, by antipyrin, was attributed to a like stimulation of the inhibitory centres connected with the thermal system. Paresis of these centres was one of the conditions of pyrexia, and the action of antipyrin was to restore their lost tone and power. Even the thermolytic influence on the peripheral temperature could be explained in the same way. In fever the surface vessels were irregularly contracted, irregularly with regard both to time and to locality. Leyden and Fraenkel had long ago pointed out that, so far as the cutaneous vessels were concerned, this was probably due not so much to spasm of the vaso-constrictors as to paresis of the vaso-dilators. These oppositely acting nerves Dr. Gaskell had included in his great generalisation, and they were now to be regarded as catabolic and anabolic respectively. The anabolic or vaso-inhibitory nerves actively dilated the calibre of the vessels. Now, when in a fevered limb the peripheral temperature was low, it had been shown that antipyrin produced a prompt and intense increase of its temperature. This was attributed to a stimulation of the vaso-inhibitory centre, the analogue of the vagus centre; the vessels of the limb were thereby promptly dilated, and the slight increase of blood pressure already noted sufficed to drive the hot blood through the patent channels. The slowing of the heart under the drug, at least when it preceded any marked fall of temperature, he could not account for entirely as the result of simple cooling, but believed it might depend on a like stimulation of the inhibitory nerve of the heart—namely, the vagus.

The account of the phenomena of megrim given by Dr. Lauder Brunton was quoted, and the analogy pointed out between the irregular contraction of the temporal artery and its branches and that just alluded to as explaining the vagaries of the peripheral temperature in fever. The conditions which gave rise to megrim were more allied to exhaustion than to irritation, and his own experience suggested that paresis of the vaso-inhibitory mechanism of the cephalic, and especially the cerebral, vessels played a large part in its causation. If this were so, the study of the properties of antipyrin might almost have enabled us to predict its efficacy in relieving the affection; for its primary and characteristic physiological action seemed to be—to stimulate to greater activity, to more regular function, the inhibitory mechanisms generally, whether muscular or vascular, and in particular those seated in the brain.

LECTURE V.

To complete the account of the physiological action of antipyrin, it was necessary to say something of the remarkable effect it had in allaying certain forms of pain, especially that which we are accustomed to call neuralgic. Without going too deeply into the views the lecturer entertained as to the nature of pain, it would be enough to consider one or two aspects of it. The seat of pain was in the brain. Ferrier had localised the tactile sensation in a particular region, the hippocampal convolution and its neighbourhood. When this centre is destroyed, though the sensory nerves are intact, there is loss of common sensation, and insensibility to pain when the peripheral nerves are irritated or injured. When it is intact such irritation calls forth the movements which are recognised as the outward manifestations of inward pain. It is possible, however, without injury to the centre to inhibit the manifestations of the sense of pain. Centres higher than the tactile are capable by their action of repressing its over-excitation, even when the peripheral stimulus is urgent. In the heat of a battle a wound is unfelt. "The labour we delight in physics pain." Intense concentration of the attention is an analgesic. In the hypnotic state it is probable that powerful stimulation of inhibitory centres plays the chief part in producing the analgesia often observed. The afferent nerves were regarded as catabolic to the pain-perceiving organ; the higher inhibitory centres were capable of sending it anabolic impulses. Over-excitation of a sensory nerve led thus to excessive disintegration of the cerebral tissue, and therefore, if we could check the waste or intensify the anabolic influences reaching the tissue, we might abolish the pain which was the psychical counterpart of that waste. This was apparently what the nervine antipyretics accomplished. They acted, not by numbing the sensory nerves, but by stimulating the inhibitory centres. The new drugs, which reduced fever by their action on the thermo-inhibitory mechanism, were found, by a like action on other centres, to be each in turn capable of abolishing pain.

The effect on the sweat glands was not wholly accounted for by the increased circulation through the skin. To flush a secreting gland with blood was not all that was required to induce it to perform its function. The secretory nerves required to be simultaneously stimulated to action. The surface might be highly hyperæmic in fever and yet remain harshly dry. Antipyrin doubtless furnished the necessary nervous stimulus, and it was in accordance with the other actions suggested that it should do so by stimulating the anabolic component of the secretory nerves and centres.

Antipyrin, therefore, on review of all its properties, was to be classed as a true antipyretic, and not merely as a refrigerant; it was not, however, a febrifuge. It repressed thermogenesis, and at the same time did something to make thermolysis more efficient. It imitated nature; it produced an artificial crisis by the same mechanism as nature used in producing a true crisis. In neither case, however, was thermotaxis at once restored. As after a true crisis the temperature, though lowered, was still very unstable, so after antipyrin the temperature was ready to rise again on slight occasion, and did, in fact, rise as soon as the drug was eliminated. It did not cure the specific fever, it only allayed the pyrexia. In pneumonia, for example, the temperature could be brought down by antipyrin on the second or third day and kept down continuously, but the other physical signs remained unaffected, and did not change till the true crisis appeared. This of course would not be indicated by any abrupt fall in the temperature; but the pulse, breathing, sputum, and physical signs all showed that resolution had begun, that the acute phase of the disease was at an end. The *symptom* fever was separated from the other symptoms, but the morbid process was not thereby appreciably altered. In typhoid, in like manner, though the disease might occasionally be made to run an almost apyretic course by the use of antipyrin, it did not appear to exert any specific action, the duration of each case was about the same, and relapses were as common, if not, indeed, somewhat commoner than under a purely expectant treatment.

In the hectic fever of phthisis antipyrin was capable of lowering the daily accessions of fever, and the comfort of the patient was in consequence increased. But the influence was essentially transitory, and no real or permanent improvement in the signs of the disease accompanied it. The drug counteracted the *effect* of some morbid poison on the thermal mechanism; it did not affect the *generation* of this poison. It was purely a symptomatic remedy, like codeine for the cough, atropine for the sweating, mineral acids or opium for the diarrhœa. But it was none the less an acquisition to our therapeutic resources to possess a means which at once was potent to reduce the febrile temperature, and that *cito, tute, ac jucunde.*

In rheumatic fever, on the other hand, something like a specific action was observed. The pain and fever were in many instances very promptly allayed, at times within twenty-four hours. But it was still doubtful whether this argued an action analogous to that of the salicylates. The lecturer had seen cases in which, though there was neither pain nor fever, the swelling and redness of the joints remained unimproved, and when the antipyrin was discontinued for a day the attack resumed its previous severity. However, the causation of rheumatism was so bound up with excessive or perverted metabolism in the muscles that he was prepared to believe that a medicine capable of checking muscular metabolism might go far towards striking at the root of the disorder. The question was, in fact, still an open one.

The relative merits of antipyrin, thallin, antifebrin, and phenacetin were very briefly dealt with. The discussion of these must rest largely on accounts of clinical experience, and the conditions of the lectureship appeared to exclude any long digression in this direction. So far as their physiological action was known, it was similar to that of antipyrin, which he had taken as their type. They all repressed thermogenesis, and probably all in the same way, though there were differences in the intensity and duration of their effects. Antifebrin was especially to be commended for its smaller dose and its cheapness, and it proved an efficient and pleasant antipyretic and analgesic.

Turning next, for comparison's sake, to another antipyretic method, by some considered *the* antipyretic method, that of cold bathing, the lecturer said that though its application was originally based on a theory which he regarded as erroneous and one-sided—namely, that high temperature is the primary source of danger in fever—the practice had, in typhoid fever at least, proved itself remarkably efficient. It had been so widely used abroad, that statistical data for a judgment on its success were unusually abundant. Within late years exhaustive discussions on the bearing of these data had been published. He instanced that of Dr. Cayley in 1880, that of Dr. Sidney Coupland and others at the Medical Society in 1884, and those at the first and fourth Congresses for Internal Medicine at Wiesbaden (1881 and 1885). The special memoirs of Küchenmeister, Naunyn, and others dealt with the same question, and he would therefore refrain from going over the same ground, confining himself to reciting what he took to be the verdict at present. Naunyn, who was not affected by the prepossession of the extreme school that fever as such was the chief enemy to be combated, who had indeed done a great deal to overthrow this doctrine, nevertheless could say: "I consider it proven, as a matter of statistics, that the cold-water treatment of typhoid shortens the duration of individual cases, and, above all, very considerably reduces the mortality—namely, from 15 or 20 per cent. to 5 or 10 per cent. And von Ziemssen, who was not an enthusiast, who had contributed much to our knowledge of other methods of treatment, and who had a very large experience of all, concluded that "of all the therapeutic methods which have been adopted for typhoid, hydrotherapy deserved to be put foremost. The experience of all competent observers undoubtedly goes to justify this preference." Two questions might, he said, be asked regarding a therapeutic method: first, does it exert a favourable influence on the individual case? secondly, does it show a like influence on the general run of the cases, as indicated by the mortality? Both of these questions, on the ground respectively of clinical observation and of statistics, must be answered in the affirmative. As regards the disease in Germany there was hardly room left for doubt as to the value of the method: it was difficult to believe that the conditions were different in England. The experience of those in this country who had judiciously and systematically applied the cold bath treatment was cited, and proved on the whole to be in accordance with that on the Continent. Dr. Sidney Coupland's account of the obvious effects of bathing was taken by way of indicating the questions concerning its physiological action which had to be studied.

First, several reasons were given to show that the benefit of the cold applications could not be exclusively due to mere refrigeration, to simple abstraction of heat from the body by *force majeure*. Naunyn had insisted on this point, and had furnished good reasons, clinical and experimental, in its support. The most efficient method of keeping down the temperature in typhoid was the continuous tepid bath of Riess, in which patients were kept in water at 88° F. or so, from ten to twenty hours at a time. In this way the temperature might oscillate about the normal throughout the greater part of the illness, yet Riess's rate of mortality was not of the lowest. Including all cases, it was on the average 22 per cent. The same observer had previously forcibly suppressed pyrexia in his patients by the continuous use of sufficient doses of salicylic acid, but notwithstanding he lost 24 per cent. of his cases. Other instances were given in illustration, and the conclusion drawn that we must seek for an explanation of the wholesome effect of cold bathing in its influence on the nervous system, transmitted in the first instance through the sensory nerves.

The effects on the several factors of the thermolytic system were then considered in detail. The primary contraction, followed by reactive dilatation of the cutaneous vessels, was compared with the vaso-inhibitory action of antipyrin. The radiation from the skin was increased after tepid baths immediately; after cold baths it was at first diminished until the skin temperature rose to a certain height, when it again increased. Diuresis was a usual result of the bath, and might be credited, among other more important and valuable results, with a certain thermolytic effect. The changes in the respiration, the increased depth and slowness of the breathing, were described and evacuated from the same point of view. Incidentally it was remarked that the fear some physicians entertained lest cold bathing might bring about pulmonary congestion was not justified by experience, or indeed by physiology. On the contrary, the pulmonary tissue was more fully opened up, bronchial and vascular obstructions removed, and the signs of partial collapse or engorgement usually done away.

As to the effect of cold bathing on thermogenesis, there was still a great deal to learn. Direct calorimetric experiments which would be at all decisive on the subject were very difficult to devise, and the lecturer had not been able to suggest any satisfactory contrivance. A number of observations had, however, been made on the changes in metabolism that accompanied the baths, but in most the method used was not free from physiological objections, and in few had the temperature been effectively kept down for any length of time by the application of cold. Riess, whose experiments on antipyrin had been alluded to, had made a parallel series on the effects of his continuous tepid bath, and his results were the most directly comparable with those on the effect of drugs. Three days of the continuous bath were interpolated between two periods of three days each when the fever was unchecked. Cerebral disturbances were absent, and no difficulties in making exact determinations of the excreted nitrogen were met with. In four cases the increase of nitrogenous excretion during the bath days over the average of the fever days was respectively 13·1, 12·4, 2·7, 37·0 per cent. In the last case defervescence had probably commenced during the course of the experiment; but, if the last days of low fever were excluded, and the bath days compared only with the preceding fever days, the percentage of increase was still 25·8. This effect was just the opposite of that obtained under antipyrin, and it pointed most suggestively to a different *modus operandi* for the two antipyretic methods. During the bath days it was, moreover, to be observed that the urine excreted was greater than on the fever days by 3310, 2450, 2650, 2750 cubic centimetres respectively. There was thus no direct evidence of diminished thermogenic metabolism under the continuous bath. Was it possible that in unchecked typhoid fever the nitrogenous excretion, though in excess of that in health, is yet inadequate to eliminate all the waste that is produced? If so, the baths might be supposed to lead, not to increased metabolism, but merely to increased discharge of the accumulated nitrogen. Dr. Murchison's supposition that the cerebral and other symptoms in typhoid were "uræmic" in character was recalled, and correlated with this hypothesis of retained nitrogen, and with the ascertained effects of bathing on the kidney.

One inference which might be drawn from this apparently fundamental difference of action in two methods of treatment, both potent to lower the temperature, was that the two methods were, as Riess had said, complementary. Combined antipyresis in typhoid, an evening bath, and antipyrin or other efficient drugs during the day, would be eminently rational, and it was certainly more suitable for English practice than the frequent cold bath. It should not, in the present state of our knowledge, be held as a reason for condemning the baths that they led to increased discharge of nitrogenous excreta; but it certainly was in favour of antipyrin that it diminished not merely the discharge, but the production of such waste. In certain cases—such, for example, as those presented by feeble, emaciated, or aged patients—it would be preferable to employ an antipyretic method which was proved capable of checking metabolism; while in robust and previously healthy patients, the fact that metabolism was apparently increased by cold applications would not hinder us from resorting to a mode of treatment which clinical experience had abundantly proved to be useful.

RESULTS OF

MAJOR AMPUTATIONS TREATED ANTISEPTICALLY IN THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

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DURING the year 1887, as will be seen from Table I., it has been found necessary to perform a major amputation upon sixty different patients, and on two occasions a double amputation has been resorted to, making the total number of major amputations sixty-two in number. Of the sixty patients two only have died (3·3 per cent.), the remaining fifty-eight having now all recovered. The table gives the results of major amputations treated antiseptically in the Royal Infirmary during the year 1887.

TABLE I.

—	For Injury.			For Disease.			Total.
	Cases.	Rec.	Died.	Cases.	Rec.	Died.	
Double amputations*	2	1	1	0	0	0	2
Hip-joint	0	0	0	1	1	0	1
Thigh	5	4	1	15	15	0	20
Leg	2	2	0	7	7	0	9
Ankle-joint	2	2	0	10	10	0	12
Shoulder-joint	1	1	0	3	3	0	4
Arm	2	2	0	5	5	0	7
Forearm	3	3	0	2	2	0	5
Total	17	15	2	43	43	0	60

* (1) Leg and thigh; (2) both forearms.

Precise cause of death.—1. A man, aged thirty-six years. Compound fracture of thigh and opposite leg. Thigh and leg amputated. Death in two hours. 2. A man, aged seventy years. Compound comminuted fracture of leg. Refused primary amputation. Gangrene set in at once, and five days after the accident the thigh was amputated, the

TABLE II.

—	For Injury.			For Disease.			Total.
	Cases.	Rec.	Died.	Cases.	Rec.	Died.	
Double amputations	2	1	1	0	0	0	2
Hip-joint	0	0	0	12	7	5	12
Thigh	31	27	7	106	100	6	137
Knee-joint	7	6	1	5	5	0	12
Leg	43	39	4	57	55	2	100
Ankle-joint	18	18	0	56	55	1	74
Shoulder-joint	6	6	0	8	8	0	14
Arm	27	25	2	17	16	1	44
Forearm	24	23	1	16	16	0	40
Wrist	7	7	0	0	0	0	7
Total	165	149	16	277	262	15	442

gangrene then having extended to the buttock. Death from gangrene of the stump.

Table II. gives the results of major amputations treated antiseptically in the Royal Infirmary from April 1st, 1878, to Dec. 31st, 1887, a period of nine years and nine months. The mortality is 7 per cent. For injury it is 9·6 per cent.; for disease 5·4 per cent.

I regret that I am unable to give the precise cause of death in those cases which proved fatal during a period of four years and nine months—viz., from April 1st, 1878, to Dec. 31st, 1882; the actual mortality of amputation was, however, during that time, for injury, 18·4 per cent.; for disease, 5·2 per cent.; and of the whole number of amputations (160), 10·6 per cent. For the later period of five years—viz., from Jan. 1st, 1883, to Dec. 31st, 1887—I have already given the precise cause of every fatal amputation either in this or other papers published in THE LANCET; and it is exceedingly satisfactory to find that the results of the later are distinctly better than those of the earlier period, and this notwithstanding the fact that ten amputations at the hip joint are recorded during the five years, against two during the four years and nine months.

Table III. gives the results of major amputations treated antiseptically in the Royal Infirmary from Jan. 1st, 1883, to

TABLE III.

	For Injury.			For Disease.			Total.
	Cases.	Rec.	Died.	Cases.	Rec.	Died.	
Double amputations	2	1	1	0	0	0	2
Hip-joint	0	0	0	10	7	3	10
Thigh	15	13	2	69	66	3	84
Knee-joint	4	4	0	1	1	0	5
Leg	23	23	0	33	31	2	56
Ankle-joint	14	14	0	40	39	1	54
Shoulder-joint ..	3	3	0	6	6	0	9
Arm	16	16	0	11	10	1	27
Forearm	16	15	1	12	12	0	28
Wrist	7	7	0	0	0	0	7
Total	100	96	4	182	172	10	282

Dec. 31st, 1887. The mortality is 4·9 per cent., against 10·6 per cent. For injury it is 4 per cent., against 18·4 per cent.; for disease it is 5·4 per cent., against 5·2 per cent. During the five years there has been only one death from pyæmia or other form of blood-poisoning.

The mortality from amputation has always been looked upon as a fair criterion of the hygienic condition of a hospital, and when the precise cause of death as well as the actual mortality is given no better test can be applied. It would be interesting to know what is the mortality from amputation at the present day in the small or cottage hospitals of England. It was when Mr. Burdett published his statistics, in 1882, 17 per cent. It would also be exceedingly interesting to know what, during the last five years, has been the mortality from amputation in some of the large London hospitals, and particularly in Sir J. Lister's wards at King's College Hospital. I venture to hope the combined mortality from amputation in the provincial hospitals of the north of England, Leeds, Liverpool, Manchester, North Staffordshire, and Newcastle-on-Tyne will compare not unfavourably with the mortality of St. Bartholomew's, Guy's, the London, Middlesex, and St. Thomas's Hospitals combined, and I should like to see a comparison made.

Newcastle-on-Tyne.

CATARRHAL FEVER; ITS CAUSE, COMPLICATIONS, AND CONSEQUENCES.

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IN medicine, as in other branches of science, it is very possible to overlook or misunderstand the lessons to be learnt from the commonest things; and it has often seemed to me that the causes, complications, and consequences of ordinary febrile catarrh have not been sufficiently dealt with by medical writers, possibly because those to whom we look up to for instruction are rarely consulted about such simple matters as the milder and commoner forms of this disease. Those, however, who are engaged in general practice must be aware that perhaps the commonest of all diseases, especially amongst children, is a feverish affection, often beginning with a more or less distinct rigor, followed by a rise in temperature, which may not exceed 100° F. or may reach 104° or even more; is attended with pain in the limbs, back, and head; runs a definite course (usually of seven days); and may be attended with, or followed by, more or less irritation of the mucous membranes, varying from a little running at the nose to a serious bronchitis, or, in some constitutions, and especially in hot weather, diarrhœa. Moreover, if there is one case of this description in a household there are almost sure to be more. Usually the whole family is affected sooner or later—most of them, perhaps, very slightly, but still perceptibly; and one is told that "a cold has been going through the house." The popular belief is that this and many other diseases are the consequence of exposure to cold; possibly because a rigor is a common way in which they first make themselves known; but, as Dr. Ransom has lately pointed out, this is for the most part an unsatisfactory theory. Many medical men are somewhat reluctant to admit infection as a cause of disease, except in certain well-known and clearly defined cases; but it seems difficult for anyone who has seen how inevitably, in spite of the greatest care to avoid all other causes of ill-health, one child after another will fall ill with catarrh when once it has been introduced into a nursery, not to admit that infection is, at any rate, one way in which it spreads; and if infection is admitted to be one cause of the disease, is it not as illogical to look for others as it would be in the case of small-pox or scarlatina? Nor is a characteristic eruption wanting, as in other febrile diseases, in the shape of herpes labialis, though of course it is not invariably present, as may be said even in the case of scarlatina. All the facts connected with the disease are easily explained on the hypothesis that it is caused by the action on the system of a definite morbid poison received from some person already suffering from the same complaint, and which may perhaps be some day isolated and shown under a microscope. As in the case of other morbid poisons, the effect produced varies enormously according to the constitution of the person affected. One attack seems usually to protect a patient for a limited time, and, as in many other diseases, it is the complications rather than the disease itself which are apt to become serious.

The poison of catarrh, like that of measles, seems to have a special tendency to cause irritation of the mucous membrane of the respiratory tract, though that of the digestive organs is by no means exempt. In the colder months of the year, and especially among the poorer classes, there is an enormous mortality from what is usually certified as bronchitis. Now, I believe that, when these cases are investigated, it will be almost invariably found that some, often all, the other members of the family have been having catarrh in one form or another; and, in the very numerous cases of non-fatal bronchitis in infants that the ordinary practitioner is called on to attend, a little inquiry will, I believe, show the same to be almost invariably the case and the seven-day period to be equally the rule. The same applies to a large proportion of attacks of bronchitis in adults, though, in their cases, other causes, such as old-standing heart disease, kidney disease, and chronic lung affections of different kinds and degrees, often introduce complications. Pneumonia, again, in a large number of cases, is associated with the presence in the same house of ordinary febrile catarrh, and has also a distinct tendency to crisis at the end of seven days from the rigor which so often marks its onset. The existence of an apparently infectious form of pneumonia has often been pointed out, and is more easily explained if it be admitted that pneumonia is a not infrequent complication of catarrhal fever as well as of typhoid and other fevers. Everyone, again, must have noticed how largely, in the death returns of populous places, bronchitis in infants and the aged is, during hot dry autumn weather, replaced by diarrhœa, rendering probable some connexion between the two; and those whose practice lies much amongst children must have noticed that autumnal diarrnœa is a febrile complaint, often attacking in succession members of the same family, frequently beginning with more or less bronchial trouble, with a tendency to a seven-day period, and that when one child in a family has distinct diarrhœa others will often have some degree of ordinary catarrh, with or without

bronchial irritation. Moreover, the way in which influenza or epidemic catarrhal fever, which seems to be only a more violent form of common catarrh, has on more than one occasion accompanied or preceded Asiatic cholera seems to indicate some connexion between the two diseases; and is it not, therefore, the more probable that there may be a similar connexion between ordinary catarrh and ordinary autumnal diarrhœa? Nor is this view of autumnal diarrhœa incompatible with the observations that make it probable that the germs or other causes of this disease are more abundantly produced during hot weather in connexion with decaying organic matter, and especially at that time of the year when the first vigour of vegetable growth is over. It may either be that the catarrhal germs under such circumstances grow and multiply outside the body like microbes in the cultivating media of the pathologist, thereby obtaining a special kind of potency; or the diarrhœa-causing germs may be a distinct species, only able to multiply freely and produce their full effects when they obtain lodgment in a body already made less resistant to such influences by the catarrhal poison, either on account of a diminished power of the white blood cells to destroy invading microbes or from other causes. This diminished resistant power induced by catarrhal fever seems also often to afford the starting point of phthisis, perhaps because the tubercular bacillus, which must be plentiful enough in the air of most towns, can then find a suitable soil wherein to multiply.

Other complications and consequences of catarrh might be mentioned, but this paper is probably already too long, and I would conclude by the suggestion as to whether it is not probable that the majority of cases of common colds, influenza, bronchitis, croupous pneumonia, and perhaps autumnal diarrhœa, are not different forms of one and the same disease—catarrhal fever—conveyed by infection having a strong tendency to a seven-day period, and, like other infectious diseases, best prevented, when isolation is impracticable, by free oxygenation of the blood—that is, by plenty of fresh air.

Barnsley.

A CERTAIN CUTANEOUS AFFECTION OCCURRING IN DIABETES.

BY T. DAVIES PRYCE, M.R.C.S.,
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IN discussing this subject, I propose to narrate two cases of diabetes with which there was associated a condition of "erythematous œdema" of both feet, to consider the cutaneous affection in its relationship to other complications of diabetes, and to make a suggestion as to its nature and pathology.

Charles B——, aged sixty-seven, admitted May 14th. He has suffered from double sciatica for a period of ten years. For the last three years pains of a lightning and burning nature have been especially marked in both lower extremities. The left foot and leg have, however, been the seats of the greatest pain. Both knee jerks are diminished, and can only occasionally be obtained on reinforcement. There is marked muscular incoördination in the dark or with closed eyes. There is no evidence of muscular paralysis, but distinct anæsthesia of the extremities is present, associated with pricking and burning sensations. Most of the teeth have fallen out in a fairly sound condition. There had been occasional neuralgia of the fifth nerve, but not to any marked extent. The patient complains of thirst, and passes an unusual amount of urine, which is acid, sp. gr. 1025, and contains sugar, but no albumen or peptone. A week after admission the pains in both feet and legs had greatly increased, the burning sensation of these parts being almost unbearable, and the left foot presented a peculiar erythematous and œdematous condition—which I will venture to call "erythematous œdema"—over the whole of the external portion of the sole. It was especially swollen and painful over the heads of the fourth and fifth metatarsal bones. There was also a painful and discoloured spot over the plantar aspect of the left great toe. The right foot presented a similar condition of erythema and œdema, but to a lesser degree. There was no resemblance between the condition described and the œdema of dropsy. Urine: sp. gr. 1030; contained much sugar; average daily amount seven pints. This condition continued to increase for a period of three weeks, when it attained its height. During this time the dark spot on the left great toe had increased in size and become extremely painful; a pit-like depression had formed in its centre, and it was surrounded by a distinct anæsthetic zone a quarter of an inch in radius. I ventured to think that a perforating ulcer would be formed. The patient was then given antipyrin, in addition to the morphia already prescribed, and from this time onward the condition of both feet gradually improved. The improvement in the local affection was coincident with a gradual diminution and final disappearance of the glycosuria, which has, however, occasionally reappeared, but has not been accompanied by any other symptoms than a decided increase of the pains in the extremities. In this case there were no gastric crises, eye symptoms, or further characteristics of tabes dorsalis.

William A——, aged fifty-eight, admitted Oct. 12th. He has suffered from thirst and passed an excessive amount of urine for more than two years. Complains of shooting and burning pains in both feet and legs, but more especially in the right foot. Both feet are extremely painful, and present the condition of "erythematous œdema" already described. Knee jerks diminished, but not totally abolished. Slight muscular incoördination; pricking and numbing sensations in both feet; no evidence of paralysis; no gastric crises or other further symptoms of tabes dorsalis. The teeth have been falling out, in a fairly sound condition, for a period of three years. Urine: sp. gr. 1036; acid; contains sugar, but no albumen or peptone. Says he passes about fifteen pints every twenty-four hours. The patient was given morphia, and a slightly restricted diet and rest were insisted upon, with the result that in two weeks the local affection had much improved, the amount of sugar passed had much diminished, and the general condition of the patient had become decidedly better. Urine: sp. gr. 1026; still contains sugar; average daily amount eight pints. There has been an occasional return of the erythema, but only to a very slight extent, and occurring for the most part together with variations in the general diabetic condition.

In neither of these cases was there a history of syphilis, alcohol, or rheumatism, but in both there had been considerable exposure, and the last-mentioned patient, owing to his occupation, had been continually on his feet. The following are the points most worthy of note:—(1) The association of the cutaneous affection with diabetes; (2) the simultaneous improvement in the local affection and in the general diabetic condition; (3) the symmetrical distribution of the cutaneous disease; (4) the presence in both these cases of marked evidence of nerve disease, central or peripheral, as shown by muscular incoördination, almost total abolition of the knee jerks, pain of great intensity, anæsthesia, &c.; (5) the absence of gastric crises, girdle pains, and prominent eye symptoms, apparently pointing to some peripheral sensory rather than central nerve change; and (6) the condition of "erythematous œdema" was accompanied in one case with evident tissue destruction, as shown by commencing ulcer formation. Other points of less importance are the falling out of the teeth in a sound or fairly sound condition,[1] and the distinct improvement in the pain and glycosuria which followed the administration of antipyrin in the first case.

Having pointed out the chief characteristics of the above cases, it will be well to mention a few considerations which appear to throw considerable light upon their nature and pathology. For some time past it has been known that diabetic patients are peculiarly liable to suffer from certain nerve troubles, central or peripheral. A form of peripheral neuritis has been described as occurring in diabetes. Ziemssen, Worms,[2] Buzzard,[3] and others have described cases of diabetic neuralgia, and the first-named believes this affection to be due to a neuritis, caused by the circulation of glucose in the blood, acting in a very similar manner to the poison of lead or alcohol. At a meeting of the Nottingham Medico-Chirurgical Society held in January, 1887, I suggested that in many of those cases of diabetes with

[1] M. Magitot believes that diabetes causes alveolar osteo-periostitis, and consequent shedding of teeth (see annotation in THE LANCET of Jan. 14th, 1882). This has also been observed in another case of diabetes and ataxia by myself. Compare with Sir James Paget's case of alveolar necrosis and shedding of teeth following herpetic eruption and neuralgia of the fifth nerve (Brit. Med. Jour., vol. ii., 1866, p. 402).

[2] Bulletin d l'Académie de Médecine, 2e série, t. ix.

[3] THE LANCET, vol. i. 1882, p. 302.

associated ataxia this latter condition was due to a neuritis of the peripheral nerves, more especially of the sensory muscle nerves; and I instanced a case in which there were present diabetes, ataxia, and perforating ulcer of the foot,[4] and in which very extensive peripheral nerve change was found, but in which no true tabetic lesion of the cord could be discovered. In this case there was also present in both feet a very similar condition of erythematous œdema to that already described. The comparatively frequent occurrence of symmetrical neuralgia in diabetes would appear to point to the conclusion that this disease is especially liable to affect the sensory nerves or nerve fibres. I venture to think that there is some resemblance between this condition of erythematous œdema and the earlier stages of Raynaud's disease, and diabetic gangrene,[5] and would suggest that the pathological processes in these diseases may be of a somewhat similar nature. Bearing in mind these considerations, and comparing them with the chief characteristics of the cases related, it appears to me that the condition of erythematous œdema described is due to a peripheral nerve disturbance (probably a neuritis), the result of the circulation in the blood of the diabetic poison; and that this neuritis is more especially located in the sensory, vaso-motor, and trophic nerves, as evidenced by pain congestion, œdema, and commencing tissue destruction.

I will briefly enumerate the grounds upon which my conclusion is based, and they are:—1. The comparison of the cases related with the case of diabetes, ataxia, and perforating ulcer, in which there was also present erythematous œdema, and in which extensive peripheral nerve changes were found; with cases of œdema and erythema resulting from injury or disease of nerves; and with those cases of diabetic neuralgia related by Ziemssen, Buzzard, and others, which some have considered to be due to a neuritis of the affected nerve. 2. The symmetrical nature of the disease pointing to a general cause. 3. The simultaneous improvement in the diabetes and in the cutaneous affection. 4. The association of the disease described with marked evidence of nerve change, central or peripheral.

Nottingham.

ONE LUSTRUM OF DIPHTHERIA AT ST. GEORGE'S HOSPITAL.

By H. T. GRIFFITHS, M.D., M.R.C.P.,
LATE MEDICAL REGISTRAR.

DURING the years 1882-86 ninety-one cases of diphtheria were admitted—a small number as compared with similar admissions at the large hospitals, but keeping well up to the proportion of other diseases. In all these ninety-one cases tracheotomy was performed fifty-eight times, *with only two recoveries*, or a mortality of over 96 per cent. Taking the years separately, in 1882 eight cases were admitted, all of a malignant type; seven of the eight died within thirty-six hours. Tracheotomy was advised in seven cases and performed in six, all being fatal, the one not operated on living for seven days. Albumen was found in the urine of every case in varying amounts. In 1883 twenty cases were admitted, with a general mortality of 70 per cent., one case of tracheotomy out of eleven operated on being successful. Albumen was absent in the urine of one case, doubtfully present in three cases, present in the rest. In 1884 twenty admissions are recorded, with a mortality of 90 per cent. Eighteen times tracheotomy was performed, with one recovery; that case, however, developed symptoms of diphtheritic paralysis five weeks after membrane was first seen, death occurring from involvement of the diaphragm in the paralytic progress. No post-mortem examination was obtainable. As regards albuminuria, of the twenty cases eight were children, and in eight cases no urine was forthcoming, but albumen was absent in two only of the twelve examined, the rest varying from a trace to one-half. In 1885 twenty-three cases were admitted, with a mortality of 83 per cent. Fourteen cases were submitted to the operation of tracheotomy, but were all fatal, though one patient died on the eighteenth day from pneumonia. In 1886 twenty cases were admitted, with a mortality of 75 per cent., tracheotomy proving *uniformly* fatal in nine cases; albumen being present in the urine in fourteen cases only. Thus, then, of the ninety-one cases admitted 83·6 per cent. proved fatal, and of the cases of tracheotomy the *mortality was over 96 per cent.*

Statistics of the larger hospitals are not easy to separate, as they mingle together in some cases diphtheria and croup; but the St. Thomas's Hospital records for the lustrum 1881-85 show that they admitted 194 cases, with an average mortality of 53 per cent; while of the 106 tracheotomy cases the mortality averaged 74 per cent. "At the Hospital for Sick Children, Great Ormond-street," writes Mr. E. Owen in the *British Medical Journal*, May, 1887, "there have been in a little less than five years sixty-six cases of tracheotomy for laryngeal diphtheria, out of which there have been twenty-five recoveries" (mortality 62 per cent.); "and at St. Mary's Hospital during the last four years there have been also sixty-six cases, with a mortality of 61 per cent. ..... In laryngeal diphtheria tracheotomy should not be regarded as a last resource, but as a valuable therapeutic measure, if only it be performed early enough."

Of the alternative operation, intubation, we have no experience at St. George's; but even Dr. Symonds, in a thoughtful paper published on Nov. 19th, 1887, does not prove a much larger percentage of recoveries with intubation than with the more severe operation. Why, then, do we not obtain a larger number of recoveries after tracheotomy at St. George's? Apart from the operation on very young subjects in whom rallying powers are feeble, and who die in an enormous percentage, more ought to be successful. The elements of success depend on several factors: early operation, careful nursing, and removal of membrane when possible. I have seen many cases in which the operation has been postponed until too late, owing either to unwillingness to operate, or to not putting sufficient pressure on the parents to obtain their consent. Careful and intelligent nursing is all-important, with strict attention to detail: such cases should never be handed over to probationers in nursing, as is often the case; in fact, I remember a child who died with symptoms of pneumonia, and in whose bronchi after death numerous portions of feathers were found, which had become separated during the wiping out of the tracheal tube. Removal of membrane can be effected shortly after operation by the insertion of a catheter safely armed with cotton-wool, or by an instrument resembling the wire pipe-cleaners commonly sold in shops. Other details it is unnecessary to insist on here; but in the early stages, before tracheotomy has been performed, surely it must be an error to keep a patient in a *warm* moist atmosphere: warm *dry* air should easily be obtained (more easily in private than in hospital cases) by the aid of gas stoves, lamps in the corners of the room, &c. I remember a quoted case in which—I think in Scotland—the little patient was taken out to the end of the pier, warmly wrapped up, and kept there for many hours in the summer time, which case did well. The operation of tracheotomy, though simple in itself, is too often left in the hands of junior house surgeons, though necessarily so sometimes at night and in cases of urgency.

Shall we in the future, then, see intubation taking the place of tracheotomy, and reducing the high average of mortality? I think not, as the operation requires more readiness of hand and demands more practice than the other operation—an operation which confessedly is fatal in over 60 per cent. of cases under favourable circumstances, and which at our own hospital, in the five years under notice, resulted in the alarmingly high mortality of 96 per cent.

Kensington-square, W.

[4] Ibid., vol. ii. 1887, p. 11.

[5] Lizé, Holmes' System of Surgery, vol. i., p. 127. Compare with first case.

A CASE OF

ANEURYSMAL VARIX IN A STUMP.

By A. H. ROBINSON, M.D., M.R.C.S.

IN this case a communication existed between the ends of the divided popliteal artery and vein after amputation below the knee, together with two varices upon the popliteal vein simulating sacculated aneurysm of the artery. The man in whom this condition existed is a tinner by occupation, and at the time of operation was thirty-two years of age. He has enjoyed the best of health, and is of powerful physique. His family history also is excellent. The pre-

vious history of the condition in question dates back to the year 1867. At that time the patient was employed in an oil mill, and there sustained a severe crush of one of his feet, followed by gangrene, for which amputation of the leg four inches below the knee was performed. He made a good recovery after this operation, and shortly afterwards began the use of a box leg of the ordinary form, the knee joint becoming ankylosed at a right angle. With this he became able to walk long distances, on more than one occasion as much as thirty miles in a day. Beyond slight abrasions about the knee no untoward result followed this severe exercise, nor had he any trouble with the stump of any kind until the year 1884, in the summer of which he came under my care. Six weeks before my first seeing him he sustained a severe blow on the extremity of the stump. This caused him very severe pain, which lasted for some time and gradually abated. He was, however, unable to undertake the walk to his place of employment, some two miles distant, owing to the recurrence of pain brought on by movement. He was compelled to rest at home, and I was then asked to see him.

On examining the stump, its whole posterior aspect presented a swelling which was pulsatile, the pulsation

possessing a heaving character. The pulsation was synchromous with that of the femoral artery, and compression of that vessel controlled the beating in the stump. There was no redness or heat of the integuments, but pain was constant, aching, and severe, and increased on the least movement. The pulsation was distinctly expansile, but no bruit could be detected in any part of it. The man was unaware of the existence of this pulsation prior to the accident above mentioned. He represented that the pain was becoming more and more severe, and the swelling increasing in size. Under these circumstances I advised an immediate exploration of the stump, to which he readily assented. He was placed under the influence of chloroform, an Esmarch's compressor placed on the thigh, and a longitudinal incision made over the course of the popliteal vessels. After some dissection, what appeared to be the sac of an aneurysm the size of a walnut sprang into the incision. For the purpose of getting beyond this and ligaturing the vessels higher up, I extended the incision upwards, when a second and larger sac was exposed. Having got well above this, a ligature was placed round the vessels, and the two sacs, together with the internal popliteal nerve, were dissected out and removed. The ligature was applied almost exactly opposite the knee joint. The wound was completely closed and the patient able to resume his employment in six weeks. The pain he suffered before the operation left him entirely, and he was able to resume the use of the box leg. On examining the portion of vessels thus removed, it was found that the supposed aneurysmal sacs were in reality two varices of the popliteal vein, nearly globular in shape. The distal and smaller of these constituted the extremity of the popliteal vein after its ligature at the time of the amputation, and it opened above almost directly into the upper and larger varix, beyond which the trunk of the vein apparently resumed its normal calibre. The popliteal artery showed no alteration in its walls, though its lumen was diminished. The artery was laid open on a probe, and at its termination the probe passed easily by a flap-like opening into the distal varix. The internal popliteal nerve, increased in thickness, wound spirally round the varices, to which it was firmly united by connective tissue. The specimen is in the museum of the Royal College of Surgeons. (See annexed woodcut.)

Bancroft-road, E.

A CASE OF

PUERPERAL ECLAMPSIA TREATED BY INDUCTION OF PREMATURE LABOUR.

BY N. WINGFIELD MEADOWS, L.K.Q.C.P.

THE patient, Mercy R——, aged eighteen, a strong and healthy primipara, six and a half months advanced in pregnancy, first consulted me on Sept. 20th, 1887, for persistent headache and giddiness of a week's duration. On examination, I found the urine to contain 30 per cent. of albumen, high coloured and scanty, with marked œdema of both legs and a considerable degree of general malaise. She was ordered a brisk cathartic, to rest in bed with the feet raised, and to take tincture of digitalis (twenty minims), acetate of potash (five grains), and camphor water (one ounce) every four hours.

Early on the following morning I was summoned in great haste, the messenger stating that she was having fits and dying fast. On arriving, I found the patient in a condition of clonic spasm, unconscious, and with difficulty held in bed by two nurses, the seizures recurring every half-hour, each lasting about five minutes. They presented the usual characteristics of puerperal eclampsia as described in text-books: the pupils dilated, lids open and eyes directed upwards, teeth clenched, breathing in gasps, the face intensely cyanosed, and twitching violently with each respiration. The tongue had unfortunately been bitten through before I arrived. On attempting to examine per vaginam, the convulsions redoubled in severity, the mere contact of the hand with the labia throwing the patient into a condition of opisthotonos, rendering impossible the completion of the examination. On placing the hand over the fundus uteri no contractions could be felt. The inhalation of chloroform to the full extent slightly reduced the duration of each attack; it produced, however, no permanent effect either upon the seizures themselves or upon the length of the intervals between them, the condition of the patient becoming the same each time its administration was suspended. Two scruples of chloral having been administered per rectum, and repeated an hour afterwards, without producing any better result, I performed venesection from the basilar vein to the extent of eight ounces. The blood thus obtained was of an almost black colour, and coagulated rapidly upon exposure to the air; with its flow the cyanosed aspect of the face and neck gradually disappeared, and the patient relapsed into a state of absolute coma, which persisted throughout the night and until 4 P.M. of the following day, a period of thirty hours, during which interval the catheter was employed frequently, and her strength supported by enemas of egg and brandy. Towards midnight, consciousness becoming partially restored, I was enabled to administer a strong cathartic by the mouth, and a mixture containing half a drachm of chloral and one scruple of bromide of potassium. Copious watery evacuations were produced, and the patient expressed herself towards morning as feeling much better, but with no recollection of her previous state. On again testing the urine, the amount of albumen was found unaltered.

Judging the opportunity favourable to obtain a few hours' much-needed sleep, I now left the patient in charge of two nurses, giving them strict injunctions as to the treatment I wished employed until I could visit her in the evening. I had, however, barely reached home (a distance of six miles) when I received a note stating the fits had recurred with unusual severity, and urging my immediate return. On arrival with all possible speed, I found the seizure to be marked by no intermissions, the patient being in one continuous fit, with her limbs violently convulsed at intervals, her face congested to the last degree, the pulse full and wavering, respiration jerky, and at times suspended for half a minute. Employing the same remedies as before, but with no better result, and finding her strength to be fast sinking, I obtained a hasty consultation with Dr. Paxton, at that time acting as *locum tenens* to Dr. James at Biggleswade, in which we agreed that the sole chance of recovery lay in emptying the uterus of its contents without further delay. Chloroform accordingly being administered to the fullest extent, a thorough vaginal examination was with some difficulty obtained, the introduction of the hand causing uncontrollable contortions of the whole body, notwithstanding that the administration of the anæsthetic had been pushed to its utmost. Finding the os undilated and a vertex presenting, the membranes were punctured in the expectation that the escape of the liquor amnii, aided by hypodermic injections of ergotine, would induce uterine action and the case so terminate naturally; six hours having, however, elapsed without bringing any change, the uterus during the latter part of this time being in a state of continuous spasmodic contraction and the patient's powers fast failing her, an attempt was made to dilate the os by means of a small-sized Barnes's bag (the finger having been previously employed, in the absence of a sponge-tent, to allow of its introduction), but this proved fruitless, owing to the irritation it set up causing the patient's movements to increase to such a degree as to render its retention impossible. The os was therefore forcibly dilated by the fingers, and at 11 P.M. I was enabled to apply the long forceps and to deliver the patient of a seven-months fœtus, which bore traces of having been dead in utero about a week. Very little subsequent hæmorrhage occurred, the uterus, aided by pressure at the fundus, contracting well upon its contents as they were withdrawn. The convulsions ceased entirely within half an hour after delivery, but the pulse became almost imperceptible, the face blanched, and syncope imminent. A nutrient enema, together with hypodermic injections of ether, happily counteracted these effects of shock; but it was not until nine o'clock of the following evening, twenty-two hours after delivery, that partial consciousness was restored. The subsequent progress of the case was one of uninterrupted convalescence. The œdema of the legs was absorbed by the end of the second day, and the amount of albuminuria reduced to one-third its original amount. A week later this had entirely disappeared, and the patient was allowed to sit up.

New Cross.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ABSCESS OUTSIDE THE TONSIL, IN AN INFANT, CAUSING DYSPHAGIA AND DYSPNŒA, RELIEVED BY OPERATION IN THE NECK.

By W. PASTEUR, M.D. LOND.,
PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

THIS case seems worthy of publication on account of its rarity. I was unable to discover the exciting cause of the suppuration. The region involved was the cellular tissue outside the right tonsil and the tonsil itself. The posterior wall of the pharynx was quite free, and there were no signs of spinal caries. There were no enlarged glands in the neck.

J. P——, aged three months, was brought to the out-patient department of the North-Eastern Hospital for Children last February, with the following history. The infant had been breast-fed, was always fairly healthy, and had been well cared for. Ten days previously the mother noticed that the child had some difficulty in swallowing, and breathed badly when he was at the breast. A doctor was called in, who ordered hot fomentations to the neck. The child became rapidly worse. After three days a swelling was noticed in the right side of the neck. A week later the child's condition was so alarming that the mother brought him to the hospital. The patient was a rather wasted, pallid infant, with laboured, catching breathing, not unlike that of a bad case of catarrhal laryngismus. Swallowing was practically impossible. There was a diffuse, deeply fluctuating swelling in the right side of the neck at the anterior border of the sterno-mastoid. The skin over it was moderately tense, but not reddened. On looking into the mouth the passage of the fauces was seen to be almost entirely occluded by a large swelling in the position of the right tonsil. By passing the little finger carefully behind this, it was ascertained that the pharynx was perfectly free, and that a distinct fluctuation wave was also communicable from the tonsil to the tumour in the neck. At my request, Mr. Blake, the house surgeon, made a short incision in the most dependent part of the tumour in the neck, and evacuated three ounces of inodorous green pus. The swelling at the back of the mouth immediately disappeared, and all the distressing symptoms were at once relieved. A probe passed through the wound impinged against the finger on the tonsil with only mucous membrane intervening. The wound healed completely in ten days. The child was kept under observation. He remained absolutely free from all throat trouble until June 19th, when another abscess of the same size formed in exactly the same situation in the course of a few days, giving rise to an identical train of symptoms. The same operation again gave instant relief. On this occasion the abscess cavity was explored with the finger, and its relation to the tonsil clearly established. In the neck the cavity lay in front of the great vessels.

Queen-street, Mayfair, W.

CASE OF URÆMIC CONVULSIONS FOLLOWING POST-SCARLATINAL NEPHRITIS.

By JAMES MASON, M.D. BRUX., L.R.C.P. ED., &c.

ALTHOUGH the following case presents little novelty either in its clinical features or in the treatment adopted, still a summary of its salient points may not be entirely without profit. It illustrates, among other things, that even when the greatest care is taken post-scarlatinal dropsy may occur, and also that even in the apparently most hopeless cases recovery may take place. It is further interesting as illustrating how careful one ought to be in adopting the *post hoc propter hoc* method of deduction.

The patient, a boy about eight years of age, suffered, along with the other members of a large family, from scarlet fever. Fourteen days after the rash had disappeared œdema of the eyelids and hands was observed. There was a considerable quantity of blood present in his urine, for which Hazeline, among other drugs, was tried, but without obvious benefit. The usual fomentations were applied, and he had several hot baths; but on the fourth day after the appearance of the œdema he was seized with a convulsive fit, the clonic spasm being, however, entirely confined to the left side. On being called, I at once gave him a hot blanket bath, and injected an eighth of a grain of pilocarpine over the deltoid. Although free perspiration soon followed these agents, the stertor seemed to increase and the coma to deepen. After consultation it was decided to try venesection. The median basilic vein was opened, but so altered was the blood and so weak was the circulation that only a few drops of thick treacly fluid escaped; after trying various means to increase the flow, which were ineffectual, the incision was covered up and the boy was left to die. Next morning, however, he was laughing and chatting with his brothers, who were convalescing from scarlet fever, and in three weeks more he was fit to go to the seaside.

Had we obtained a free flow of blood from the boy's arm, I certainly should have been inclined to credit the venesection with the cure, and, reasoning from that, would have been more inclined to adopt that practice in any similar case. The moral to be drawn is obvious.

Whitwell, Chesterfield.

A CASE OF HYDRAMNIOS AND MONSTROSITY.

By W. N. HEYGATE, M.R.C.S.,
HON. MEDICAL OFFICER, BATH EASTERN DISPENSARY.

THE following may be of interest from the rarity of these cases, and it also gives an illustration of Dr. Leith Napier's "Remarks on Hydramnios" in THE LANCET of June 2nd and its connexion with monstrosities.

Mrs. F——, whom I had previously attended for membranous dysmenorrhœa, engaged me to attend her in her first labour, which she expected at the end of May or the beginning of June. I was requested to visit her on April 27th, as she had pains, which came on at long and irregular intervals, and prevented sleep. I saw her again on April 30th and May 1st. The pains had continued, and she mentioned that her stomach was very hot and red. On examination I found very great distension, and marked erythema of the abdominal parietes. I thought it probable that she was dropsical as well as pregnant. I was sent for again on the evening of May 2nd, when I examined per vaginam, and found the cervix dilated to nearly the size of half-a-crown. The pains occurred at long intervals, and were very slight. I was unable then to diagnose the presentation. On the following day, at 4 P.M., I was requested to see her, when I found the cervix nearly dilated to the full extent, and the bag of membranes projecting; still I could not make out the presenting part. After waiting a short time I drained off the liquor amnii, which nearly filled two full-sized chamber vessels, besides partly saturating the bed and other things. I could not, however, quite satisfactorily determine the presentation; but, as the pains became sharp and the labour progressed, I did not trouble myself about this. In about an hour the child was born, and presented the following abnormalities: The mouth, nose, and ears were natural in appearance; the eyelids were open; the eyeballs very large and protruding, and looked highly repulsive; the cranial head was absent; immediately above the orbits and a short distance above the ears on each side (and this was covered with skin and hair), the base of the skull was filled in by undeveloped bone and skin; and behind, in the ordinary position of the occiput and upper cervical vertebræ, there was a deep depression, oval in shape, with sharp edges; and it was these which formed the presenting part and which puzzled me even after I had evacuated the liquor amnii. The fœtus appeared to be one of eight months, and showed no signs of life. The other parts of the body were natural. My patient objected to be questioned upon the subject, and I did not press her further, but she told the nurse that she had been much frightened by a cat in the early months of her pregnancy.

Bath.

THE ALKALINE TREATMENT OF ECZEMA.

By T. FREDERICK PEARSE, M.D., F.R.C.S.

ACTING on the principle that acids applied to an acid-secreting surface and alkalies to an alkaline surface diminish the respective secretions, I have treated cases of eczema for many years by alkaline applications. It may be termed unphysiological, and that the morbid exudation of eczema has no parallel with the normal secretion of glands. My answer is in the results. There is not the slightest doubt that an acid applied to an eczematous surface will irritate and increase the exudation, and I am equally satisfied that alkalies judiciously applied will have a contrary effect. Whatever views we may have on the pathology of eczema, the great diversity of methods shows that we have no definite *rationale* of treatment. At the same time, I do not argue that alkalies have any "specific" action. No one who has seen much of eczema can doubt that the associated disorder to which these patients are subject is that connected with their digestive organs. The internal treatment is undoubtedly of paramount importance. The one thing also, which appears most successful is some saline aperient which produces a "weeping" from the mucous surface of the intestines, and hurries on the contents. This clinical fact suggests that the cause of eczema lies in some imperfect process of digestion, whereby some abnormal chemical compounds are absorbed, and, circulating in the blood, irritate especially the skin structures. These compounds are, I admit, unknown. Not only, however, are saline aperients successful in the treatment of eczema, but alkaline combinations especially so. The most common prescriptions contain these drugs in endless variety. This treatment is very successful for adult life, but it is not nearly so useful in the eczemas of young children. In these cases, however, alkaline applications are equally successful in those of riper years, if not more so. Whether the fault in adult life lies in deficiency and that of eczematous children in excess of secretion of acid gastric juice is difficult to decide, but the internal administration of alkalies combined with saline aperients in the eczemas of grown-up people is that on which the greatest reliance is generally placed. In children, however, an exactly opposite line of treatment will often be found successful. It is especially in scrofulous children and in the general eczema of infants that I have found benefit from the administration of hydrochloric acid. These little patients have generally some palpable digestive disturbance. I have frequently found unexpected benefit from the internal administration of nitro-hydrochloric acid combined with sulphurous acid, and at the same time the external application of alkalies. These latter may be used as bicarbonate of soda solutions, 5 to 10 grains to the ounce, sometimes combined with small quantities of glycerine, or by weak solutions of liquor potassæ 10 to 30 drops to the ounce. As a general rule, it may be said that the more acute the eczema, or rather the more copious the exudation, the weaker must be the application. It should be applied, whenever possible, continuously. In chronic cases ointments may sometimes be used, such as bicarbonate of soda, 10 to 30 grains to the ounce of vaseline.

The above is very briefly some idea of the methods I have successfully adopted in a very large number of cases, many of which had been treated on other principles and with entirely different drugs without avail. In a future communication I hope to enter into details of cases and the treatment applicable to the variations through which the eczematous stage passes.

Montague-street, W.C.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

SEAMEN'S HOSPITAL, GREENWICH.

TWO CASES OF CEREBRO-SPINAL MENINGITIS; DEATH; REMARKS.

(Under the care of Drs. ANDERSON and CURNOW.)

THE following are instances of the onset of this fatal disease in the persons of two sailors, who were apparently in good health before they were attacked. In one, where the symptoms of the spinal affection were obscured by those of the cerebral disease, the duration of life was only about seven days. In the other, the patient lived for nearly a fortnight; but here the disease was so masked by the presence of pneumonia that its exact duration cannot be accurately given. For the notes of these interesting cases we are indebted to Dr. E. F. Trevelyan, B.Sc., the house physician.

CASE 1.—The patient, a Norwegian aged twenty-one, was admitted under the care of Dr. Anderson on May 30th, 1888. His last voyage was from Norway, and he was sent direct to the hospital from his ship by the port medical officer of health. He had been ill for four or five days with severe headache. There had been no vomiting; no fit. There was no history of ear disease. Constipation was present.

Condition on admission. — Drowsy, though restless at times. Seems to have much pain in the head. If the head or neck be moved, he cries out with pain. The head is much retracted. There is an eruption of herpes at the right angle of the mouth. Pupils equal, reacting naturally; no squint. Tongue moist, slightly coated. Temperature 102°; pulse 92, regular. No abnormal physical signs in the chest. Abdomen slightly retracted, otherwise natural.

Tache cérébrale present. No albumen in the urine. An ophthalmoscopic examination revealed nothing, except slight fulness of the veins.

May 31st.—The patient had laid all day yesterday in a half-dazed condition, uttering a hydrocephalic cry every now and again. He was very delirious last night. There was some general hyperæsthesia this morning. Passed urine under him. Slight twitchings were noticed about the mouth yesterday; none in the limbs. No ocular palsy. Head very distinctly arched backwards. Abdomen retracted. Pulse 100.

June 1st.—Quieter night, but the patient was crying out in the early part of the evening. Semi-comatose this morning. Bowels opened by an enema (calomel having failed to act): first stool since admission. There is a crop of herpes about the left angle of the mouth, very symmetrical with that of the other side. Arching of neck still present. The urine contains abundant phosphates. The patient was seen by Dr. Anderson to-day. The diagnosis of cerebral meningitis was confirmed, and the nature of the meningitis was more obscure.

2nd.—Was singing and shouting out yesterday afternoon, scarcely to be recalled to himself. Refused food about 6 P.M. Became gradually more comatose. Was unable to swallow during the latter part of the night. The temperature, taken hourly, rose from 104° at 10 P.M. to 108·2° at 5 this morning; the pulse having varied during the night from 100 to 120. The patient died deeply comatose shortly before 6 A.M. The temperature, taken twenty minutes after death, was 109·6°.

At the post-mortem examination there was much dark-stained hæmorrhage from the veins about the occiput. When the brain was removed, much yellow pus was found in the following situations: in the interpeduncular space, extending into the Sylvian fissures; over the upper surface of the cerebellum; over a considerable area of the anterior surface of both frontal lobes; also in one or two places over the convexity of the hemispheres. Pia mater intensely injected; small extravasations of blood at the bottom of some of the sulci; no pus visible to the naked eye in the sulci. In some places the pia mater was adherent to the brain surface, the latter being torn when the membrane was removed. On section many puncta cruenta were seen. Brain substance decidedly softer than natural. Ventricles filled with a turbid, serous fluid; not distended. No pus in the sheath of the optic nerves. Much pus on the posterior surface of the spinal cord, in the lumbar and dorsal regions, also about the medulla oblongata. Substance of cord softer than natural. Lungs very œdematous. Other organs healthy No tubercle anywhere.

CASE 2.—The patient, an Italian, aged thirty, was admitted, under the care of Dr. Curnow, on June 8th, 1888. His last voyage was from India in a Genoese vessel, and he had probably touched at an Italian port. He gave the following history. He had been quite well up to three days before, when he shivered. He has had cough since then. The expectoration has been tinged with blood for the last two days.

Condition on admission.—Flushed face; alæ nasi working; cough; rusty expectoration. Respiration 36; pulse 116, regular, good volume. Tongue moist, slightly coated at the back. Urine contains no albumen. Chest: slightly impaired percussion at the right base behind; bronchial breathing at the upper limit of the dulness; weak breathing below; bronchophony; no râles; pleuritic rub in right axilla.

On June 9th he was seen by Dr. Curnow, when he only showed the usual symptoms of a pneumonia of the right lower lobe

For the next two days the patient's condition became somewhat worse, more and more of his right lung becoming involved. Delirium was noted for the first time on the afternoon of June 9th, but it was always slight, and lasted only for a short time until the night before his death (June 18th).

On June 16th the following note was made: No crisis yet (twelfth day of disease), although there was some sweating last night. The patient holds his ground well. Had a fair night; no delirium. Tongue moist; appears to be cleaning from the edges. Pulse 136, regular, fair volume; respiration 52. Cough still troublesome; expectoration fairly abundant; not so rusty. Temperature: evening, 102°; morning, 101·6°. Bowels open twice daily. Chest: Impaired percussion all over the right side (front, back, and axilla). Bronchial breathing, and bronchophony all down the right back. Breath sounds faintly bronchial over the right apex in front, distinctly so lower down and in the axilla. Supplementary breathing over the left front. Urine contains a cloud of albumen.

From this time up to the afternoon of June 18th, the patient's condition remained much the same, except that he was weaker. A change came over him about 3 P.M. on that day. He began to refuse food, ceased to cough and expectorate, passed everything under him, and lay in a semi-conscious state, although restless at times. At 11 P.M. sordes were seen on his lips and teeth. Pulse 140, regular, fair volume; respiration 48, effective; no cyanosis; temperature 103·2°.

On June 18th he became comatose about 8.30 A.M., after a very restless and delirious night. The temperature rose to 105°; pulse and respiration still fairly good. He died at 2.30 P.M., deeply comatose.

At the post-mortem examination the whole of the right lung was completely solid, in no place breaking down; towards the upper part it was more red and granular; lower down passing on towards grey hepatisation. Brain: The dura mater was more adherent than natural. Much yellow pus was to be seen in the following situations: in the interpeduncular space, extending on either side along the vessels into the Sylvian fissure; on the under surface of the pons Varolii; over the upper surface of the lateral lobes of the cerebellum, and also, but to a less extent, on the under surface. Two or three patches on the convexity of the brain. Intense injection of vessels of the pia mater, and dulling of membrane. Thickening and adhesions of the membranes about the fourth ventricle. On section many puncta cruenta were seen. Ventricles filled with sero-purulent fluid, blood-stained. Spinal cord: much pus about the medulla oblongata; some pus covering the posterior aspect of the cord in the lumbar region. Other organs healthy, excepting that the spleen was enlarged.

Remarks.—In the first case the clinical picture was fairly complete, except that the spinal symptoms were greatly masked by the severity of the cerebral disturbance. The diagnosis of cerebral meningitis was clear enough, but the nature of the meningitis was perhaps more obscure, as cases of cerebro-spinal fever are not so often seen, and therefore their existence might not present itself to the mind. The difficulty is well described by Professor Strümpell in his very complete text-book when he says: "The diagnosis is less easy in sporadic cases, if the patient be in a bad way and unable to give an account of himself when he comes under observation." The mind of the patient in question was far from being clear, and what history was to be got was obtained through an interpreter. The acute onset and rapid development of severe mental disturbance, the rigidity of the neck, and labial herpes, should perhaps have decided one as to the extent, and therefore the exact nature, of the disease. In the second case the presence of cerebro-spinal meningitis was not suspected during life, and, reviewing the case with the knowledge obtained after death, it is difficult to see how the diagnosis was to be made. In the treatise referred to above it is said, in speaking of a purulent meningitis complicating pneumonia, that intense headache, rigidity of the neck, and a stupor passing into deep coma, are the principal characteristics. In this case there was an entire absence of headache, there was no rigidity of the neck, and coma was only present at the extreme end. The mental condition never approached a state of stupor, except within the last twelve hours—indeed, even delirium, which might well have been expected, considering the amount of lung involved, and the delayed crisis with the consequent exhaustion to the patient, was only noted on two or three occasions. It was then slight, and only lasted a short time. Indeed, if there had been no post-mortem examination, the case would have been put down as simply one of acute pneumonia with a most unusual termination. The examination of the head was undertaken—and Dr. Curnow laid stress on this—to explain this termination.

HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.

A CASE OF CARIES OF THE SPINE WITH ANGULAR CURVATURE, IN WHICH THE SPINE WAS TREPHINED TO RELIEVE PRESSURE ON THE CORD.

(Under the care of Mr. G. A. WRIGHT.)

FOR the following account we are indebted to Mr. J. Hilton Thompson.

John O——, aged seven years, was admitted on July 25th, 1887, for angular curvature of the spine. There was a family

history of phthisis. He had always been a delicate child, and had a history of lung affections. Disease of the spine was noticed about seven months before admission.

When admitted there was a marked angular curve in the mid-dorsal region, with some lateral thickening; there was also paresis of the lower limbs. The muscles of the right lower extremity were wasted, and when at rest the limb was involuntarily drawn up. The condition of the patient became gradually worse, and on Sept. 14th, 1887, was as follows:—The muscles of the lower limbs were in a state of tonic contraction with marked flexion, which was more easily overcome on the left side. The plantar reflexes were exaggerated, the cremasteric very feeble; the deep reflexes could not be obtained. The feet were slightly swollen and cyanotic, both symptoms being more marked on the right side. There was analgesia extending from the level of the eleventh rib on the right side to about the middle of the leg; below this point there was anæsthesia. There was no hyperæsthesic band. On the left side sensation was normal.

Notwithstanding the application of all the usual methods of treatment—viz., absolute recumbency, the administration of hydrargyrum cum cretâ and of iodide of potassium (the latter in gradually increasing doses, up to fifty grains, three times daily), and the application of the actual cautery, which were all given a fair and prolonged trial,—the condition of the patient became worse. The anæsthesia gradually extended upwards to the level of the eleventh rib on the right side; on the left side, also, decrease, and finally loss, of sensation became developed, the anæsthesia extending from the toes to the level of the pubes; and thence to the line of the eleventh rib a condition of analgesia existed. Not the slightest voluntary movement could be made with either limb; there was also incontinence of urine and fæces. No sign of any abscess was found. It was decided to open the spinal canal, and, if possible, relieve pressure.

Operation.—On Jan. 26th, 1888, an incision about four inches in length was made along the line of the most prominent spinous processes, and the soft parts on each side separated so as to expose the osseous surfaces. Three laminæ were divided on each side, and were removed with their attached spines, uncovering the theca of the spinal cord, which, at the lower part exposed, was found surrounded by a buff-coloured, tough, leathery substance; this was cut away with scissors. The cord did not appear to pulsate, but no point of constriction could be found. The muscles were brought together by deep sutures of catgut, and the skin with waxed silk; a small drainage tube was left in. The wound, having been dusted with iodoform and boracic acid in equal parts, was dressed with sublimated wood-wool wadding. Careful antiseptic precautions were observed before and during the operation. The trunk was supported by a special iron splint.

The wound healed rapidly by first intention except at the drainage opening, which, however, also quickly closed. No change was noticed until Feb. 7th, when pin pricks could be felt about three inches below Poupart's ligament on each side. Nine days later there was slight voluntary flexion of the left thigh, and on Feb. 17th distinct voluntary contractions of the right quadriceps extensor were observed. On the 20th pin pricks could be felt as far as the knees, and both thighs could be slightly flexed. On the 21st pin pricks could be felt in the left foot, but on the right side there was no return of sensation below the knee. No further improvement took place, the condition of the patient remaining *in statu quo* until March 17th, when the area of anæsthesia was found to be increased, and a few days later was practically the same as before the operation; about the same time he lost all power of voluntary movement in the lower limbs.

Remarks.—This case demonstrates the possibility of safely exposing the spinal theca, and, although only temporary and imperfect relief was afforded, appears to justify the hope that operative procedure may give permanent relief in similar cases. It is of course doubtful whether the paralysis was entirely due to the pressure of the lymph that was found lying on the theca; it is possible that an abscess in front pressing upon the nerves may also have been present, but it was not perceptible. The child is now (June, 1888) at home, practically *in statu quo*, and the question arises whether any further operation is worthy of trial. The brief summary of the case given above is thought to be of sufficient interest to be recorded, especially now that the question of spinal surgery is again brought forward.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Vernal Conjunctivitis — Prevention of Hæmorrhage in Iridectomy.—Embolism of Central Artery of Retina.—Hæmorrhage after Iridectomy for Glaucoma.—Partial Ophthalmoplegia.

AN ordinary meeting of this Society was held on July 6th, Mr. J. W. Hulke, F.R.S., President, in the chair.

Dr. ADOLF BRONNER recorded three cases of Vernal Conjunctivitis. One case, a boy of ten, showed the typical changes as described by Saemisch and others, on the limbus corneæ and conjunctiva of the upper lid. In the second case, a youth of eighteen, the limbus only was affected. In the third case, a woman of thirty, the limbus was much affected, and the conjunctiva of the upper lid slightly. Dr. Bronner thought that vernal conjunctivitis was not a distinct and separate disease, but a hypertrophic form of chronic conjunctivitis, not rare in children, and generally classified under follicular conjunctivitis.

Dr. BRONNER also spoke of a suggestion of Dr. Bell, for Preventing Hæmorrhage into the Anterior Chamber after Iridectomy. The iridectomy scissors were placed in boiling water until just before use. In most cases hæmorrhage could thus be prevented. In some cases, however, especially cases of glaucoma, there was abundant hæmorrhage.

Dr. MULES related the case of a young woman, aged twenty-one, who perceived a blank over a portion of the upper segment of her right visual field. Within an hour she was at the Manchester Eye Hospital. Her right visual field was found contracted above. Seen under direct ophthalmoscopic examination, the fundus showed a blocked lower retinal artery, the clot being visible and extending from the entrance on the disc to the first bifurcation. The retina was slightly œdematous. Massage was tried, and the clot disappeared, sight at once improved, and the vessel was seen well filled. Certain difficult points of diagnosis and pathology were submitted to the members for explanation. Charts taken by McHardy's perimeter, by Dr. Griffith, Dr. Roberts, and Dr. Mules, were shown, explaining the course of the field changes. The patient's physical condition was normal.—Dr. MONEY asked what evidence there was that this was a case of embolism. He further asked whether the patient was the subject of megrim, as in cases of nerve storm of that character vascular spasm was well known.—Dr. W. J. COLLINS asked whether there was leukhæmia, and thought that, if so, the white appearance might have been due to the clot being entirely composed of leucocytes.—Mr. FROST thought that the white appearance was not due to clot, but to emptiness of the vessel.—Mr. JESSOP wished to know what was the condition of the vessels beyond. He had seen a somewhat similar case about two hours after the occurrence. He had tried nitrite of amyl, but without improvement. — Dr. ABERCROMBIE referred to a paper by Mr. Priestley Smith on the Association of Spasm of the Retinal Artery with Uterine or Ovarian Disorder, and asked whether this might not have been of that nature. He thought that the condition described was unlike embolism.—Dr. MULES, in reply, said that his first idea was against the theory of embolism. Dr. Graefe, whom he consulted, considered it undoubtedly a case of embolism. Professor Hirschberg thought that the appearance was due to aggregation of white corpuscles, and that the embolism was further back. It was noteworthy that the massage was completely effectual in removing the clot. A year previously the patient had a similar occurrence, and recovered at once upon rubbing her eye. The patient was a very healthy young woman, not subject to migraine, and free from menstrual disorder.

Dr. ROCKLIFFE contributed notes of a case of Secondary Hæmorrhage after Iridectomy for Glaucoma. Mrs. D——, aged fifty-six, the subject of chronic glaucoma, had iridectomy performed at 11 A.M. on March 17th under cocaine. The wound was dressed with eserine and cotton-wool. She drove home—a ride of ten minutes—and remained well until 5.30 P.M., when sudden hæmorrhage set in. A large clot protruded through the iridectomy incision. The eye was enucleated on the third day.—Mr. HULKE asked what anæsthetic had been used. The hæmorrhage was too early to call secondary.—Mr. LAWFORD said cocaine was used.—

Mr. SIMEON SNELL had had a case of severe hæmorrhage soon after iridectomy; the eye shrank, but was not removed.—Mr. GUNN thought the case one of exaggerated hæmorrhage, like those more numerous ones in which extravasation occurs between the retina and choroid.—Mr. MCHARDY agreed with Mr. Gunn, and said that he did not perceive what good there was in leaving the globe after such an accident had happened. The accident only showed how necessary it was to avoid any exertion on the part of the patient after iridectomy for glaucoma.

Dr. ROCKLIFFE also communicated a case of Partial Ophthalmoplegia in a clerk aged twenty-three. There was dimness of vision and pain in the right eye when looking at near objects. Eserine and spectacles +1 D were prescribed. Eighteen months afterwards internal strabismus of the right eye with diplopia of one week's duration occurred. The vision was normal, with homonymous diplopia. Both pupils were now widely dilated and fixed, but the range of accommodation of the left eye was six inches. There were no other symptoms. Iodide of potassium, the intermittent current, and mercury were prescribed. There was a remarkable toleration for mercury and iodide.

The following card specimens were shown:—

Mr. JONATHAN HUTHINSON, jun.: Traumatic Choroiditis.

Mr. MARCUS GUNN: Closure of Perforated Corneal Ulcer by Transplanted Conjunctiva.

The report of the Council was read by the secretary, showing that the roll of the Society numbered 218, the highest number yet reached. Reference was made to the Donders Memorial Fund and the share taken by the Society in that work. Mr. Power proposed and Dr. Stephen Mackenzie seconded the adoption of the report, which was duly carried. The President read a letter from Professor Donders, thanking the Society for their kindness to him, and presenting to the Society a bronze medal struck in commemoration of the event. Dr. Ord (treasurer) read the financial report, which was exceedingly satisfactory. The ballot was then taken for the officers and Council, On the proposal of the President, a vote of thanks was accorded to the retiring secretary, Dr. Sharkey.

The following is the list of officers and Council for the ensuing year:—President: Mr. John Whitaker Hulke. Vice-Presidents: Dr. T. Buzzard, Mr. Jonathan Hutchinson, Mr. David Little (Manchester), Mr. E. Nettleship, Dr. D. Argyll Robertson, and Mr. Priestley Smith. Treasurer: Dr. W. M. Ord. Secretaries: Mr. R. Marcus Gunn and Dr. James Anderson. Other members of Council: Drs. W. A. Brailey, J. B. Lawford, P. H. Mules, Seymour J. Sharkey, Samuel West; and Messrs. A. H. Benson, Edgar A. Browne, H. E. Juler, William Lang, J. G. Mackinlay, M. M. McHardy, and A. Stanford Morton. Librarian: W. Adams Frost.

OBSTETRICAL SOCIETY OF LONDON.

Mercurialisation in Lying-in Women.

A MEETING of this Society was held on Wednesday, July 4th, John Williams, M.D., President, in the chair.

Specimens.—Dr. J. PHILLIPS showed a Living Infant eleven days old, with a Malignant Tumour on the Forehead. Dr. W. T. A. GRIFFITH exhibited Microscopical Sections of Fibroma and Myoma of the Uterus and Ovary.

A report was read on the Microscopic Appearances of Portions of Suspected Placental Tissue, from the specimens exhibited by Drs. Aust Lawrence and Penrose at the meeting of the Society on March 17th.

Dr. ROBERT BOXALL read a paper on the Conditions which favour Mercurialism in Lying-in Women, with Suggestions for its Prevention. The question was debated under two separate headings—(1) increased absorption (2) defective elimination. Under the first head the site of absorption was discussed; the question whether the solution obtains entrance to the cavity of the uterus when the uterine tube has not been employed was debated, and an experimental investigation undertaken with a view to determine the point was related. It was suggested that absorption not infrequently occurs inside the uterus, even when the uterine tube has not been employed, but that it may also take place through the lacerated surfaces of the cervix, vagina, and perineum, or even through the intact mucous membrane. Reference was made to the experimental research conducted by MM. Doléris and L. Butte, which bears on this point. With a view to diminish the risk of absorption, it was suggested (1) that not only should care be exercised to obtain contraction of the uterus, but that it should be also carefully maintained, and, above all, that the douche should always be given at such a temperature as will stimulate the uterus to action; (2) that the douche should invariably be administered in the supine position, the uterus at the same time being supervised by one hand placed on the abdomen; (3) that, when the administration is completed, the precaution should invariably be taken of ascertaining that the uterus is contracted by palpating the abdomen, and, if distended, the fundus should be squeezed like a sponge in the palm of the hand, and at the same time should be depressed, with the object of evacuating the vagina; and (4) that the surfaces of lacerations about the external orifice should be brought together, and any abrasions which remain should be coated with some material impervious to the solution. Under the second head, the relative eliminative power of the different excretory organs was discussed, and especial attention directed to the condition of the kidneys and intestine. The following suggestions were offered: (1) That chronic nephritis, and probably also those changes which occur in the kidneys during pregnancy, may by diminished elimination produce an accumulation in the septum; and (2) that the intestine possesses an equal if not a greater eliminating power than the kidneys. With a view to obviate the risks arising from defective elimination: (1) That when the kidneys are affected the sublimate douche should not be employed, or, if used, extreme caution should be exercised; (2) that a free watery flow should be promoted by the kidneys, and that especial care should be directed to this point in hot weather; and (3) that the bowels should be evacuated daily, either by salines or by the administration of such agents as produce copious and loose stools. A tabulated series of eleven cases which presented symptoms of slight mercurialism was appended, and also a fatal case of mercurialism narrated.

Dr. MATTHEWS DUNCAN called attention to the easy distension of the puerperal uterus by injections, even long after delivery. Distension shortly after the birth of the child, as in post-partum hæmorrhage, was better known. Dr. Boxall had apparently overlooked a mode of conveyance, otherwise than by absorption, into the circulation. This was easily understood after delivery, when there were open sinuses at the placental site; but it might take place in the unimpregnated uterus, as Dr. Duncan had shown in a case of injection of a solution of perchloride of iron. The sudden deaths on injection of this agent were to be explained only in this way. The fluid entered in bulk, not by absorption.

Dr. ROUTH considered that Dr. Boxall's paper was admirable. Nevertheless, he thought that the routine practice of sublimate injections was carried too far. In one of the recorded cases the redness of the gums on the third day might not have been caused by the sublimate, but the mercurial symptoms came on by the sixth day. This proved that they were due to the prolonged use of the sublimate injections. The strength of the solution was reduced to 1 in 4000 after the third day. This practice, however, might cause the evil it was designed to avert, for a weak solution could be readily absorbed; a stronger preparation would coagulate the albumen and thus stop the mouths of the absorbing vessels, preventing the entrance of septic substances from without. The cases where he had seen nephritis and albuminuria following this absorption were precisely those where weak solutions had been employed. Dr. Routh recorded the case of a patient who, in consequence of pendulous abdomen, had gone one month beyond the usual term of gestation. Septicæmic symptoms occurred at the end of every week for four consecutive weeks; iodine injections always removed the serious symptoms, but as they recurred so often, he used a corrosive sublimate injection, one grain in two ounces of water, at the end of the fifth week. A considerable quantity of albuminous flakes came away, and the patient made a perfect recovery. In ordinary cases, Dr. Routh preferred iodine vaginal injections (thirty drops of the tincture to half a pint of warm water), the water being as hot as the patient could bear, whenever there was any smell. Only when there were feverish symptoms threatening septicæmia was it necessary to inject the uterus; a strong solution

of the perchloride, one part in 960 at least, should then be used.

Dr. SAMUEL SLOAN (Glasgow) favoured the abolition of the routine practice of vaginal injections in natural cases. He had discontinued routine injections, both in private and in hospital practice, for some years, and since then his results were better than before. He could not say whether this signified that injections interfered with natural processes, or that it was difficult to keep the tubes &c. used in routine injections absolutely clean. When any cause for suspecting sapræmia or septicæmia arose, he then used mercurial injections, but in private practice this was an extremely rare event. In such cases, however, mercurialism was most unlikely to occur, because the need for the drug would diminish its activity. He did not advise the discontinuance of antiseptics in hospital practice, but he objected to the routine use of injections even there. In private midwifery practice he had to a large extent given up antiseptics, for he believed that women could be kept aseptic by absolute cleanliness, healthy surroundings, and skilful management during pregnancy, labour, and the puerperium, their resisting power being at its maximum and the tendency to decomposition at the minimum. The lochia did not naturally decompose. When mercurial injections were skilfully given ballooning of the uterus could not take place. The organ must be firmly grasped by the hand during the process of injection; and by pressing back the perineum whilst the woman coughed retention in the vagina was avoided, especially if the patient were placed in the semi-supine position.

Dr. CHAMPNEYS thought that the days were past in which a speaker who talked about "antiseptics in midwifery not being necessary" would find supporters in the Society. There was some difference of opinion as to routine injections; but before discussing the subject he referred to Dr. Sloan's insinuation that Dr. Boxall's cases had not been carefully treated. Sepsis had for some years been entirely abolished at the General Lying-in Hospital. Dr. Sloan did not appear to have been so successful in his own practice at Glasgow. Dr. Champneys thought it strange that Dr. Boxall had been accused of want of care by a gentleman who attributed his own results to "dirty enemas." Routine use of vaginal douches might not be absolutely necessary, in private at least; they were far less important than antiseptic cleanliness of the hands. Still, Dr. Champneys had used routine douches for years and years, and was more satisfied than ever with them; they proved beneficial in several ways. The material to be used for the injections was open to debate. In ordinary cases he did not use sublimate on account of the risk of mercurialism, and a weak antiseptic such as iodine would probably suffice, except in special cases, at an institution like the General Lying-in Hospital, where the midwives and nurses so thoroughly understand the antiseptic system. Dr. Champneys did not see how the semi-supine position could be the best when vaginal injections were employed. It was highly inconvenient, the bed would be with difficulty kept dry, and gravitation of the injection into the uterus and subsequent absorption would be favoured rather than prevented. He regretted to hear about the "germ-resisting power" of a woman. In the old days before antiseptics, young, healthy women succumbed in large numbers to puerperal fever.

Dr. HERMAN had noted, in his own experience, a frequency of mercurialism nearly the same as in Dr. Boxall's series of cases. Assuming idiosyncrasy was the reason of the mercurialism, it appears that this idiosyncrasy was present in about 5 per cent. of all cases. He had seen a temporary trace of albumen in the urine in only two out of the eleven cases of mercurialism in his own hospital practice (referring to 182 patients admitted into the General Lying-in Hospital in the first half of 1886; in two of the eleven cases it was not certain that the symptoms were really due to mercury). In two cases of Bright's disease during pregnancy, sublimate douches, administered as in all the other hospital patients, had caused no symptoms of poisoning. Anæmic patients were not specially prone to mercurialism. Altogether perchloride of mercury was the best antiseptic in hospital practice. It was not so safe in private cases, excepting under two conditions. The nurse who gave the douche should know the dangers of ballooning of the vagina and how to prevent it. Secondly, the obstetrician should attend the case at least daily, so that he might perceive the first symptoms of mercurialism; when he ceased his daily visits the use of sublimate should be left off. "Germ-resisting power" must not be trusted.

Dr. CULLINGWORTH laid greater stress on cleanliness of hands, instruments, sponges, and everything brought into contact with the genital tract, than on uterine and vaginal injections. It was questionable whether germicide solutions should be introduced into the body of the patient. It was not the organisms already there, but those which might be introduced from without, which were to be feared. The antiseptic method must not be made too complicated, else practitioners could not adopt it. Warm vaginal injections were both soothing and useful. They, above all, promoted cleanliness, which could be obtained by harmless ingredients as easily as by poisons like sublimate. Even in cases of sapræmia, where at least one thorough intra-uterine injection was of value, milder chemical agents than sublimate were probably sufficient. Chemical products of decomposition apparently caused the harm in these cases, as the symptoms disappeared as soon as the uterus was emptied. When septicæmic symptoms had developed it was useless to employ sublimate, for no douche could reach germs which had entered the circulation.

Dr. LEITH NAPIER thought that in private practice a hot saturated solution of boracic acid was best for douches. In hospitals sublimate solutions were suitable, but they should be very diluted. Strong preparations coagulated albumen. It seemed better to employ a solution which, by absorption, might act generally as well as locally. He thought that mercury was eliminated not only by the intestine (where the unabsorbed portion was found as an insoluble sulphide), but by all the secretions.

Dr. LEWERS said that, during the year 1887, 962 women had been delivered in Queen Charlotte's Lying-in Hospital, with only two deaths.

Dr. BOXALL then replied. He thought that the direct passage of sublimate into the system was quite exceptional, and occurred when other antiseptics were used. In the rules for the administration of the douche, included in his paper, he had made allowance for ballooning of the vagina and uterus. The coagulating action of sublimate did not necessarily imply that its antiseptic influence was strictly local, still less that absorption of mercury was prevented. The coagulum at first formed was soluble in excess of albumen. Sublimate brought into contact with albumen was at first precipitated, and mercury in considerable quantity might thus be retained within the passages. But the action of the albumen of the blood and tissues dissolved the coagulum, which was then liable to be absorbed. The primary precipitation of the mercury tended to retention (hence a further reason, were any needed, for complete evacuation of the uterus), whereas the faculty for being redissolved might ultimately result in a large influx into the tissues. Whether the solution of albuminate in excess of albumen was itself a reliable antiseptic required elucidation. In conclusion, Dr. Boxall insisted on the superiority of perchloride of mercury over iodine and other antiseptic agents.

HARVEIAN SOCIETY.

Antiseptics in Internal Urethrotomy.

A MEETING of the above Society was held on May 17th, Mr. W. Sedgwick, President, in the chair.

Mr. BRUCE CLARKE read a paper on the Value of Antiseptic Precautions in Internal Urethrotomy. Attention was drawn to the fact that this operation had been advocated for many years in certain cases of stricture which do not yield readily to dilatation, yet it had never been generally accepted by surgeons. This was due partly to the fact that its results were not supposed to be good, and partly to the dangers of the operation itself. As to its results, it was often urged that the worst strictures were always those in which urethrotomy had been performed. Of course this was perfectly true, but it would be fairer to state that it was only the worst strictures that were submitted to urethrotomy. If strictures were neglected after the operation they of course recurred, and this gave a certain currency to the idea that it was the internal urethrotomy that had made them relapse. The dangers of the operation were dependent upon septic fever; and it depended upon either self-infection from a septic urethra or on dirty instruments.

The latter source of infection could be easily guarded against by the thorough cleansing of instruments and catheters; whilst the purification of the urethra was no easy matter. To effect this, however, as far as possible, the urethra should be irrigated with sublimate (1 in 2000) for several days beforehand, and, upon the stricture having been divided, the bladder should be washed out with a similar solution and then with hot water at a temperature of 105° F. Afterwards a catheter should be tied in for twenty-four hours. By this means the urine came very little into contact with the urethra, and septic infection was avoided. Fifteen cases were related in which the plan had been successfully tried by the author, and he alluded to some in which the plan had been suggested to other surgeons.

Mr. SWINFORD EDWARDS said that in the last six internal urethrotomies which he had performed he had not only carried out the suggestions of Mr. Bruce Clarke, but had administered boracic acid before the operation and for a few days after with a view of sterilising the urine, as suggested by Dr. Palmer. In none of these cases did urinary fever supervene. But, brilliant as was internal urethrotomy, he believed that the time was soon coming when it would be almost if not entirely supplanted by electrolysis for strictures in the deep or fixed urethra which were unfitted for the simple treatment by dilatation.

The PRESIDENT spoke in favour of corrosive sublimate as an antiseptic. But he regarded the prolonged suppression of urine and other severe symptoms which had followed the operation in the case referred to early in the paper as more due to shock than blood poisoning.

Mr. BUCKSTON BROWNE was interested in finding that an advocate of electrolysis in the treatment of urethral stricture still practised the operation of internal urethrotomy. He should like to know why electrolysis was not employed in the cases first detailed. He had practised internal urethrotomy now for fifteen years, and had never lost a case; he therefore knew nothing of septicæmia as following the operation. He took great care to ensure the utmost cleanliness of all instruments employed. He entirely dissented from Mr. Clarke's view that urethral fever was of septic origin, and maintained that the most perfect antisepticism would never do away with urinary fever in certain cases after urethral operations, because the fever was caused by urethral shock or irritation, acting reflexly through the nervous system upon the excretory renal apparatus.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THE Society held its summer meeting at Cambridge, on Saturday, June 23rd. A very full meeting assembled to hear papers upon a number of topics.

Professor Macalister showed a series of specimens which, in the short space of three months, he had collected from the Cambridge dissecting-room. Very curious conditions of the bones of the skull were exemplified by specimens shown by Dr. Curnow and Dr. Johnson Symington, and the latter gentleman also had a very instructive series of frozen sections through the pelvis. Perhaps Dr. Gaskell's communication excited the greatest interest. He laid before the Society his latest views upon the morphological value of the neuroglia of the spinal cord and brain, and exhibited specimens illustrating a canal which he has lately discovered at the hinder part of the tuber cinereum, and which he deems equivalent to the cephalic stomach of crustaceans. The brain was also the subject of Dr. Alex. Hill's paper on the subcallosal convolution; and Dr. A. M. Paterson, of Manchester, showed a series of specimens illustrating the development of the spinal nervous system. Mr. Treves described a case of hernia into the foramen of Winslow, which, he incidently said, had been found in a patient operated upon for abdominal obstruction.

After the meeting the members and visitors, to the number of sixty, were entertained by the President, Professor Humphry, to dinner in the hall of King's College. After-dinner speeches were made by Sir George Paget, Professor Newton, Professor Michael Foster, and others. The toast of the evening, "Success to the Anatomical Society of Great Britain and Ireland," proposed by the President, was received with great enthusiasm, and responded to by the secretary, Mr. Lockwood, who was able to report that the Society was making most satisfactory progress.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Unreduced Dislocation Backwards of Bones of Forearm.—Acute Lobar Pneumonia and Chronic Bright's Disease.—Intestinal Obstruction.—Secondary Cancer of the Lung.—Pulmonary Artery with two Valves.

A MEETING of the Pathological Section was held on May 4th.

Dr. E. H. BENNETT exhibited a specimen of Unreduced Dislocation Backwards of the Bones of the Forearm, preserved in spirit, and with it six similar specimens, preserved after maceration. He said his object in bringing forward these specimens was to draw attention to the fact that, although the varieties and conditions of elbow-joint dislocation had been very fully described as regarded the point with which he was about to deal, the descriptions of this commonest of dislocations were, even at the present day, such as were calculated to mislead. They tended to errors of diagnosis. It had been admitted by Malgaigne and others that incomplete dislocation of the elbow was more common than complete dislocation. Incomplete dislocations, such as were illustrated by the recent and dry specimens before the Academy, had been allowed to go unreduced because they had not been recognised. To ignore the existence of the incomplete dislocations, or to teach that they were recognised by displacement of the olecranon "half an inch or more above the condyle" was to ensure that they would remain unreduced. Now, it was admitted that backward dislocations of the elbow were the most common variety of displacement of the joint, and of these the incomplete were the more common. In the moist preparation before the Academy no doubt could exist as to the relative position of the bones—a doubt that some might entertain in the case of the macerated specimens. In the words of Malgaigne, "the projection of the olecranon is on a plane sensibly beneath the projection of the epitrochlea, whilst in the complete luxation the olecranon is placed sensibly above that process." His attention having been directed to the subject by obtaining this recent specimen, he had thought it well to reiterate the statement of Malgaigne—though it was sufficiently distinct, and though it ought to be familiar to writers on the subject—that the incomplete form of dislocation backwards at the elbow does occur; that it is the more common form of dislocation of both bones, which, by being left unreduced, subsequently become museum specimens; and that it probably remained unrecognised because the test of the elevation of the olecranon, relied on in the descriptions of complete dislocation, is applied to it. It was very easy for an incomplete dislocation to be overlooked when a certain amount of swelling conceals the various features.—The PRESIDENT said there had been no more important communication recently in the Section than that with which they had just been favoured. He would ask what symptoms this partial dislocation presented during life, whether it was easy of diagnosis, and whether Dr. Bennett had satisfied himself of its existence in the case of any living subject.—Sir WILLIAM STOKES asked what the signs were that would enable them to diagnose this injury during life. Where there was little or no alteration in the position of the olecranon relatively with the other osseous points, and remembering how rapidly swelling set in in the case of such injuries, the diagnosis of the exact nature of the injury seemed almost an impossibility.—Dr. BENNETT, in reply, said he desired first to refer to one point in which the complete dislocation, when unreduced, differed very markedly from the incomplete. In the latter form, when it was unreduced, the displaced bones assumed at their ends a quadrilateral shape, whereas in the complete dislocation there was nothing of the kind; the bones lay all free of each other, and there was no unusual modification of shape. With regard to the questions put by the President and Sir William Stokes, he could only repeat the words of Malgaigne, that in the incomplete dislocation "the forearm being a third flexed, the projection of the olecranon was on a plane placed sensibly beneath the projection of the epitrochlea, whilst in the complete dislocation the olecranon was placed sensibly above.

Dr. JAMES LITTLE communicated a case of Acute Lobar Pneumonia and Chronic Bright's Disease in a boy aged four years. This boy was admitted into the hospital under his care on March 31st of this year. According to his mother's account he was in perfectly good health until two

days previously, and on the day before his admission was playing about the house. The only thing she noticed—and it was what led her to bring him to the hospital—was that he had become swollen all over the body. The swelling first appeared in his face. When admitted he presented the typical appearances of a case of acute Bright's disease. He was extensively anasarcous, and there was some ground for believing that fluid existed in the peritoneal sac. He passed only four ounces of urine during the first twenty-four hours he was in the hospital—a quantity insufficient to float a urinometer, so that the specific gravity of the fluid could not be ascertained. It was muddy rather than high-coloured, and when boiled proved to be exceptionally albuminous, the coagulum filling three-fourths of the bulk of the urine. Under the microscope it showed an immense number of uric acid crystals and numerous granules. His temperature was rather high, exceeding 104°. He had a little cough, not much, and no special hurry of breathing, save that on one occasion, when put into a warm bath, his breathing rose to 76. He was recognised as a child that had been in the hospital ten months before under the care of Dr. Beatty for acute Bright's disease; and the record showed that before he left the hospital at that time his urine was entirely free from albumen. He lived only three days after his admission. The post-mortem showed a great deal of anasarcous fluid and some pleuritic fluid. The kidneys, instead of being bloody and congested, were pale, with the exception of a slight zone of congestion at the base of the pyramids. On the thorax being opened, it was found that he had suffered from acute croupous pneumonia, which was not discovered during life. Three centres of pneumonic process existed, one in the middle lobe, and two in the lower lobe of the same lung. The kidneys were microscopically examined by Dr. Bewley, who found the convoluted tubules almost completely choked by swollen epithelium and albuminous material. It was difficult even in the light of the post mortem to read the case. The impression on his mind after post-mortem examination was that it was acute pneumonia occurring in a patient who had previously been the subject of chronic Bright's disease; because it had been his experience that when pneumonia attacked a person who had previously been the subject of chronic Bright's disease it was rapidly fatal. The microscopic appearances found by Dr. Bewley hardly accorded with the existence of chronic Bright's disease. On the other hand, it was very difficult to understand why a child could become so extremely anasarcous as this child was from acute Bright's disease, and have kidneys which, instead of being bloody and dripping, were much paler than kidneys usually were after death in cases of acute Bright's disease.

The chair having been taken by Dr. Bennett,

The PRESIDENT gave an account of three cases of Intestinal Obstruction, the Viscera of which were on the table. The first case was that of a man aged twenty-seven, who stated that he was quite well until Feb. 12th in the present year. On the 17th of that month he came to the dispensary, and was examined by Dr. Little, who found symptoms of intestinal obstruction; but after a minute examination could only discover a slight tumour in the inguinal region, which appeared to be obviously not a hernia, but an enlarged gland. On March 7th he came under his (Dr. Ball's) care in the hospital, and stated that since he applied to the dispensary he had had no fæcal motions, save a little mucus, and that only after great straining. The glands on both sides of his groin were then enlarged, and in the right iliac fossa was a tumour nearly as large as a cocoanut. An examination by the rectum discovered a tumour pressing back the sacrum, which was as large as a fœtal head. There was no fluctuation in any part of the swelling. All attempts to procure evacuation having failed, an exploration was made, and the interior of the peritoneum was found to be studded with small tumours, while in the iliac fossa was a large soft tumour, to which the small intestines were adherent. The colon, being free, was taken out, and an artificial anus was formed at its middle line, from which copious motions came that at first gave the patient great relief. Gradually, however, the fæcal flow through the artificial opening stopped, and the man died with symptoms of obstruction higher up. At the necropsy an enormous mass of brawn-like tumour was found filling up the greater part of the abdomen. When freed from the intestines and surrounding parts it weighed 10 lb.; and yet it had grown in less than six weeks. A portion of it surrounded the rectum and pressed it so completely that nothing could pass through. The portion of the sigmoid flexure which was drawn out to make the artificial anus could be seen in the specimen. The immediate cause of death was not obstruction of the large intestine, but a secondary obstruction of the small intestine caused by the pressure of the tumour against the parietes of the abdomen. That this pressure produced complete obstruction was evident from the appearance of the intestine both above and below the seat of pressure. Dr. Purser had examined the tumour and pronounced it to be a sarcoma. The second case was that of a woman aged thirty-six, who was admitted into the hospital on March 29th. For a week previously she had been constipated with vomiting every day, and had taken a variety of medicines, but without effect. A marked feature of the case was that there was no evidence of distension of the intestines by gas. That led to the diagnosis of an obstruction high up, and on the same day laparotomy was performed. After searching for obstruction at the usual hernial point, they were guided by a portion of inflamed intestine to the left hypochondrium, and there found a large mass of intestine several feet in length, much congested, roughened on the surface, and tightly constricted by a ring formed in this way. A loop of the jejunum was adherent to another knuckle of the small intestine by a band from behind—the remains of which could be seen in the specimen,—and underneath this band was protruded the great mass of the ileum, which was constricted by a ring formed by the mesentery below, and at the sides by the knuckle of small intestine and the bands that connected the two of these together. A curious feature noticed at the time was that the greatest amount of congestion of the intestine, and presumably, therefore, the point of greatest strangulation, was not in the portion of intestine protruded underneath the band, but in the upper of the two loops of intestine connected by the band, as if the seat of obstruction and strangulation was at the higher loop. The operation relieved the symptoms; but the wound opened six days afterwards, and a portion of the omentum prolapsed, and the case became septic and the patient died. At the necropsy they were just able to find out where the obstruction existed. There was no general peritonitis about the seat of the obstruction. There was some inflammation of the omentum and also in the pelvic cavity. Although the case was septic, it was also afebrile, the woman's temperature never having risen above 99° during the ten days that she lived. The third case was that of a man aged sixty-nine, who was quite well until about three weeks before his admission to the hospital, when he began to suffer from loss of appetite, constipation, and distension of the abdomen. When he came in the distension was so excessive that no examination could be made. An examination by the rectum revealed nothing. A localised tympanitic distension of the abdomen was at first thought to be due to a dilated stomach, but that was negatived by the passing of a tube. Ascites was noticed on April 4th, a week after he came in. The bowels ceased to act on the 11th of that month, and on the 14th he died somewhat suddenly. At the necropsy, a large quantity of ascitic fluid was found in the peritoneum, and the surface of the intestine was covered with little masses of secondary cancer like boiled sago. In the liver were found several little depressed umbilicated patches, such as they were familiar with in cases of secondary cancer. On searching for the focus of obstruction, it was found to be in the tissues surrounding the cæcum, where there was a large hard mass, the gut itself being considerably constricted. Below that point the large intestine did not appear to be obstructed, the great distension observed during life being apparently of the transverse colon, and therefore below the seat of the greatest narrowness. A section of the growth made by Dr. Weir showed it to be an ordinary cylinder-celled carcinoma, such as was commonly met with in the intestinal tract. A point which he was at a loss to understand was that they were unable to find any portion of the intestine in which the mucous membrane was implicated. The mass at the cæcum was entirely in the structure and outside the mucous membrane, differing in that way from ordinary cases of cylinder-celled carcinoma, in which the growth originated in the gland tissues of the intestinal mucous membrane.

The President having resumed the chair,

Dr. G. P. L'E. NUGENT communicated a case of Secondary Cancer of the Lung. T. K——, aged twenty-six, a metropolitan policeman, was admitted into the Whitworth Hospital on Feb. 8th, 1888. On admission he complained of great

weakness, and slight pain between the shoulders and lower part of the abdomen. He had a wasted, haggard, and anxious expression, and was sweating profusely. His temperature was normal, and pulse slightly accelerated. He had a slight cough, of which he did not complain, and a very scanty frothy expectoration. The respirations were not appreciably hurried. On examination of his chest very few physical signs could be discovered. There was slight dulness behind over the base, and fine râles could be heard over the lungs enerally. The chest expanded well on deep inspiration without producing a cough, and there was no difference between the two sides as regards vocal fremitus and resonance. A few days after admission his right testis was found to be hard, slightly nodular, of about equal size with the other, without any adhesion of the skin. He remained in much the same condition for over a week, being greatly troubled by obstinate constipation. Enemata brought away a large quantity of scybalous masses, but this gave no relief to the steadily increasing pain in the lower part of the abdomen. The latter was retracted and tender on pressure, and the muscles rigid. On Feb. 23rd he was troubled with vomiting of a green fluid, which continued for some days. Hiccough was also present from time to time. On the 26th he complained of great pain over his heart and distressing palpitation, his pulse at this time being 130. These symptoms moderated in a few days, but the pain in his abdomen had by this time become so intense as to be almost unbearable. The sweating continued to be most profuse, occurring by night and day, and increased by the paroxysms of pain. He occasionally complained of a slight pain in the right testis. His temperature during his illness never exceeded 99° in the evening, and was normal or subnormal in the morning. His expectoration became abundant towards the close, but was always frothy and never bloody. He never complained of dyspnœa. Shortly before his death, however, his respirations were heard, and loud bubbling râles could be heard over both lungs. He died of asthenia on March 22nd. The patient's family history was good, and he never had had any serious illness himself. He noticed the hard lump in his testis about three months prior to admission, and began to feel generally unwell at the same time. He remained on duty till one month before admission.—*Necropsy:* On raising the sternum a small quantity of clear fluid escaped, and a large mediastinal gland had to be detached from the bone. The right lung was perfectly free and easily removed, but the left had some pleuritic adhesions, notably at the apex, and there was a small quantity of clear fluid in both pleural cavities. Both lungs were covered over in all parts with innumerable nodular masses, varying in size from that of a walnut to that of a pin's head, more or less round in shape, projecting externally and into the lung, covered over with a perfectly smooth layer of pleura. The nodules were yellowish-white on section, and were of rather soft consistence. The lungs internally were congested and œdematous. The mediastinal glands were much enlarged, and the weight of the lungs, heart, and glands collectively was 177 oz. The glands on the left side of the neck were enlarged and softened in the centre. The liver was enlarged; weight 84 oz.; pale in colour. Right kidney, 6 oz. in weight; pale. Left, normal. Spleen normal. Stomach and peritoneum free from disease. The abdominal glands greatly enlarged, particularly along the course of the aorta; some overlapping it, and one particularly large lying on the inferior vena cava, at the level of the third lumbar vertebra. Of the testicles the left was normal, but the right was hard and heavy, slightly nodular, but little increased in size.

Dr. A. W. FOOT exhibited a specimen of a Pulmonary Artery with Two Valves of equal size, and presenting no abnormal appearance other than unusual size. The heart exhibited was taken from a man aged sixty-nine, who had long been subject to aortic regurgitation.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—A silver wedding commemoration *fête* took place at this hospital on the 5th inst. It consisted of a flower show, concert, and floral competition between the various wards. The Princess Louise graciously attended, and was received by a deputation of the board of management and the medical staff, and conducted through the tastefully decorated wards. Her Royal Highness subsequently handed the awards to the successful competitors. The *fête* was well attended, and remained open till a late hour in the evening.

Reviews and Notices of Books.

Lectures to Practitioners. Tabes Mesenterica, by W. T. GAIRDNER, M.D., LL.D. *Phthisis Pulmonalis*, by JOSEPH COATS, M.D. London: Longmans, Green, and Co. 1888.

THIS volume contains the substance of lectures delivered by Professor Gairdner and Dr. Coats in the Western Infirmary, Glasgow, in October, 1886. It might suffice to say in their behalf, and as a recommendation for their perusal, that they are worthy of the distinguished writers who have judged rightly in submitting them to publication. In saying this we imply that they are characterised by a clearness of diction and directness of aim which makes such lectures especially valuable. Indeed, we may truly say that no one who reads them can fail to profit by their teaching, or even rise from their perusal without having his ideas upon tubercular disease in general, and upon pulmonary phthisis in particular, made clearer and more definite.

Dr. Gairdner takes for his subject "tabes mesenterica," which, as he properly points out, is a peritoneal rather than a mesenteric disease. His aim is to show—and he is successful in the endeavour—that both his own experience and that of others does not justify the unduly grave prognosis that is usually assigned to this affection. He quotes largely from French writers, especially Guersent, upon "carreau" (the common French term for the affection), and gives a lucid account of the clinical signs and symptoms of the malady. He proves to demonstration that its clinical features are so marked as to overturn the bias or prejudice which a too strict attention to morbid anatomy has been apt to create against its curability. He distinguishes two classes of the affection. The one is where abdominal swelling predominates early from peritoneal effusion, which rarely amounts to sufficient quantity for paracentesis; nor does he advocate recourse to this procedure, although cases (referred to at the close of the lecture) more recently recorded seem to show that not only simple paracentesis, but free incision and irrigation of the peritoneal cavity, are justifiable and successful remedial measures. The other variety is characterised by symptoms of peritonitis with gastro-intestinal derangement—as diarrhœa and vomiting. In treatment he dwells on the importance of well-regulated diet and the hygiene of the infant as prophylactic measures, and gives a modified approval to the application of cold recommended by Professor McCall Anderson, and to antipyretic remedies, his objection to such drugs being founded on their liability to derange digestion. The cases which form an appendix to the lectures are remarkable illustrations of the truths inferred, and support the statement that "the dark prognosis of what has been termed *tabes mesenterica*, and the still gloomier picture given in systematic works of tubercular and chronic peritonitis, may, in some, even not a few, cases be relieved of its darkest shades."

In his five lectures Dr. Coats discusses the pathology of pulmonary phthisis in all its bearings. Distinguishing broadly the two forms—caseous and fibrous,—he shows how they are both essentially tubercular in nature, their anatomical differences depending upon individual powers of resistance. He then briefly describes the conditions of lung disease which are closely allied to phthisis, but in which the origin of the destructive process is dissimilar. These conditions are (1) syphilitic disease of the lung; (2) glanders and actinomycosis; (3) diseases due to foreign bodies, an admirable exposition of the pathological anatomy of "pneumokiniosis"; (4) gangrene; and (5) chronic pneumonia. Caseous necrosis, he points out—thereby vindicating the position taken more than half a century ago by Laennec—is the central fact of phthisis. The relation of the bacillus tuberculosis to the lesions is, of course, fully

dealt with; and it is shown that it is not the bacilli *per se*, but their products, which form the noxious agency leading to tubercular inflammation and necrosis. These products are probably soluble, and it is ingeniously suggested that, becoming more diluted as they spread from their source, they set up in remoter parts—e.g., the pleura—simple, non-infective inflammation. Another suggestive and true description, which goes far to explain the frequent limitation of phthisical lesions and their arrested spread, is that of tuberculosis being primarily a superficial process. It is unable to extend beyond the barriers set by animal membranes, although it spreads through lymphatic channels by continuity, just as it spreads along the track of mucous membranes. It is clearly shown that tuberculosis is not a blood disease primarily, nor does the blood become the channel of infection in any case unless and until the vessel walls are destroyed and the virus thereby gains entrance into the blood stream. We have seldom met with the localistic doctrine more explicitly stated, and the facts cited in its support are certainly very striking. The hopefulness which this deduction from pathological study gives to the treatment of the disease is apparent, and it is further strengthened by the description of the healing processes which are so frequently met with in the lungs. Dr. Coats also touches upon such etiological questions as inheritance, contagion, defective sanitation, soil, &c., and does not hesitate to express the conviction that, like leprosy, isolation might materially diminish the prevalence of the disease. The "early hæmorrhage" of phthisis is attributed to obstructed circulation from the presence of the initial lesions, and the rapid advance of the disease after hæmoptysis is set down to the effused blood forming possibly a favourable nidus for the bacillus. The doctrine of *phthisis ab hæmoptoë* cannot, of course, be accepted in any other sense than this according to present knowledge. There are also excellent descriptions of the concomitant lesions of phthisis; and a section is devoted to the symptom of fever, the cause of which is to be sought in the local inflammatory processes, as well as in the suppuration and hæmorrhage, rather than regarded as evidence of constitutional infection. There is undoubtedly in this volume much that is original and suggestive, whilst the text is not overburdened with details and theories, which would have been out of place. In a word, these lectures are highly practical and thoroughly scientific.

A Text-book of Physiology. By JOHN GRAY MCKENDRICK, M.D. Vol. I. Glasgow: James MacLehose. 1888.

THIS book is practically a new one, and not merely a new edition of Dr. McKendrick's former treatise, entitled "Outlines of Physiology." It is clearly the outcome of no small labour. It is written by a master of the subject, and contains an immense mass of information in a highly condensed form. As Physiology was formerly, and in some universities still is, termed the Institutes of Medicine, so the subjects treated of in the present volume might fairly be termed the Institutes of Physiology, for it deals with the foundations of that science, with its chemistry, physics, and methods of research. It is a matter of regret that the physics of physiology are not more fully discussed—a subject that has been well treated by Wundt amongst others. Some points have, indeed, been introduced, and doubtless others—such as light, heat, and sound—will be considered in subsequent sections. It is difficult to make the chemical relations of the body and its compounds attractive, but the first two hundred pages appear to us to be uncommonly dry reading, and some of the formulæ might well be a nightmare to the unfortunate student who, acting without the advice of a tutor, attempts to learn them, under the impression that they are of the slightest importance, or that they "might be asked." A special chapter is devoted to the pigments, which is probably the most complete that has yet been published, and gives an account of all that have hitherto been discovered, with drawings of characteristic spectra. A good account of fermentation is given. The next section deals with the physiology of the tissues, and with the earliest stages of the development of the ovum, the description stopping suddenly with the formation of the blastodermic layers. The apparatus employed in physiological research are then considered, including the microscope, staining agents, and section cutters, followed by an account of the properties of the connective tissues. The last section is devoted to the apparatus and details of the graphic method, and to the structure and properties of muscle. The drawings, tracings, and illustrations generally have been taken, by permission, from the *Lehrbuch der Histologie* of Professor Stöhr of Würzburg, and are extremely good. The perusal of the volume leads us more and more strongly to the view that some form of preliminary education should be insisted on before a youth is dedicated to the medical profession. It ought not to be necessary to explain the nature of a battery to the student, especially if on the very next page the teacher finds it imperative to give a formula of electric action so complicated that none but a highly educated student could understand it. Whilst giving a due meed of praise to the treatise, it is difficult to say for whom such a book as this is really intended. Surely no ordinary medical student would find it serviceable to burden his memory with the fact, and the formidable equation which follows it, that uric acid is regarded by Baeyer as formed by the union of a radical cyanamide with tartronic or oxymalonic acid. Yet the number of students of pure physiology is too small, we should have thought, to enable Dr. McKendrick to obtain a sale for his book at all compensating him for the great pains and trouble he must have had in writing it.

New Inventions.

COLOTOMY DILATOR.

IT not unfrequently happens after colotomy that at the end of the first week there is a tendency for the opening unduly to contract, and if this be not prevented, in the course of a few weeks it becomes so small as to destroy the benefit of the operation. The accompanying woodcut shows the form of a dilator made for me by Messrs. Arnold, which answers its purpose well. It is made of two pieces of vulcanite hinged in the middle. The blades are introduced closed into the opening, and, being curved, are self-retaining.

A light indiarubber ring slipped over the opposite ends of the instrument and kept in place by a notch causes the blades to expand, as shown by the dotted lines, and to exert pressure on the edges of the colotomy opening. The ring must be small, as the pressure required to gradually dilate the opening is very slight. If during the second or third week after a colotomy there is a tendency to contraction, the dilator worn for a few hours a day will effectually counteract it. When the wound is once firmly healed there is seldom any further contraction.

HARRISON CRIPPS.

THE LANCET.

LONDON: SATURDAY, JULY 14, 1888.

THERE are few things more remarkable in the history of our art than the altered relations established during the present century between surgery and medicine, a subject to which Sir WILLIAM STOKES has drawn attention in his recent Cavendish Lecture. A generation which has been dazzled with the brilliant achievements of surgery, and has watched with pride its victorious and unresting advance, finds it hard to realise that it was once a despised mechanical craft supposed to be fitly associated with the labours of the common barber. To this day one may see in the villages of Italy and elsewhere upon the Continent the sign of "barber and surgeon" hung out, to inform the passer-by that within he can be shaved or bled by the same operator as occasion may arise. Even in our own country, within the memory of men still living, the surgical branch was universally regarded as inferior to the medical, a striking instance of this prevailing view being given by Sir WILLIAM STOKES, who relates that the well-known Dublin surgeon ABRAHAM COLLES was accustomed to tell how, at the commencement of his practice, when consultations were held, "the surgeon was not, as a rule, permitted to be in the room where the physicians held their deliberations, but after the consultation was over he was informed whether his services would be required or not." This presumed inferiority of surgery to medicine probably arose from the mistaken notion that the surgeon was simply an operator, and that diagnosis was the exclusive function of the physician. Probably, too, the universal prevalence at one time of the practice of bloodletting helped to degrade surgery in the eyes of the world. It is not surprising that the man who was chiefly seen with lancet in hand should sink in popular repute to the level of the wielder of the razor.

We need hardly remind our readers that all this is now altered. Surgery is no longer the despised handmaid of medicine, and scarcely needs to put in a claim to an equality which is universally accorded. It is a question indeed, whether the conditions of the rivalry do not threaten to become reversed, and whether medicine may not ere long be put upon her defence. The incursions of surgery into the field of medicine have been so numerous, so bold, and so conspicuously successful, that the most stubborn adherent of old-fashioned views may well hesitate to say to her, "Thus far and no further." The abdomen, long the exclusive province of the physician, has become one of the favourite domains of the surgeon, where his art has won some of its most amazing triumphs; and even the brain has yielded to surgery results which medicine would in vain strive to achieve. The growing relative popularity and success of surgery are no doubt due to the fact that its methods admit of greater precision than those of medicine. Even if we demur to the truth of the celebrated sneer that surgery might be defined as "quod in medicinâ non dubium," it cannot be denied that surgical diagnosis and treatment are now securely founded on a basis firmer and less hypothetical than the sister art. Another secret of the rapid growth in favour achieved by surgery in recent years is to be found in the fact that its progress has been positive, while that of medicine has been to a large extent negative. Surgery has been adding to the contents of its treasury, while medicine has been heavily handicapped by the necessity of devoting much time to the inevitable but unsatisfactory work of clearing out the débris of exploded systems and worn-out theories.

Sir WILLIAM STOKES acknowledges, however, without stint, the great obligations of surgery to medicine, such as Professor FERRIER'S investigations regarding the functions of the brain, which laid the foundation of the surgery of that region; and comments upon that most gratifying signs of these times—that surgery and medicine, no longer mutually opposed in a strife that was truly internecine, are now heartily co-operating, with the promise of a more rapid progress in the future and of untold benefit to the race.

There can be no doubt that medicine and surgery appeal to different types of mind and call different faculties into play, and it is one of the glories of our profession that it can afford scope and satisfaction for the most diversified intellectual gifts. There need be no unseemly rivalry between those who, although employed in different departments, are yet labourers in a common field and co-workers towards a common end—namely, the advancement of knowledge and the relief of human suffering. The surgeon cannot say to the physician "I have no need of thee," nor would similar language be any less inept if employed by the latter towards his colleague and co-worker. Surgery has gained much of late, but its gain has been less the loss of medicine than the extension of its own legitimate domain.

THE occurrence in lunatic asylums of fatal and unexplained casualties periodically produces in the public mind a feeling of suspicion in regard to the management of these institutions, manifested in the daily papers by condemnatory articles; and it is noteworthy that the excitement thus engendered is usually exactly proportioned to the proximity to the metropolis of the asylums implicated.

Vague memories of the past history of the asylum treatment of the insane still tend to give a mystery to these institutions, and to attach a peculiar horror to any untoward event occurring in them. These feelings are only too apt to sway the judgment of popular opinion, leading to the wholesale condemnation and denunciation of all connected with asylum management—conclusions that a better informed and less emotional view of the subject would show to be unjust and not calculated to help in the prevention of these deplorable incidents. The popular conscience, as expressed in the newspapers, having relieved itself by its execrations, goes virtuously to sleep until its next spasm of activity; nor does it reflect that it is itself responsible for permitting a condition of asylum organisation which renders such occurrences inevitable, and causes their comparative rarity to be the real source of astonishment.

To arrive at a dispassionate conclusion in a given case of unascertained injury, a general consideration of the circumstances under which they occur is desirable. That

the bones of the insane are in certain conditions diseased, in a manner that increases their fragility, is a well-established pathological fact, and although an excited fellow-patient would not probably be influenced by this consideration, it should be an additional reason for gentle treatment and constant skilled supervision, but should not constitute a plea in excuse of fractures resulting from violence. These casualties may be relegated to the following categories—viz., those resulting from the acts of the patient (suicidal, from excitement &c.); from the violence of fellow-patients; from accidents in struggles with attendants, who fail to report them from ignorance or fear; and, lastly, from intentional violence by attendants from loss of temper, &c. The question in any given case is, To which of these classes can it be referred? Let an impartial inquirer visit some of our monster asylums and mark the number of excitable inmates associated, not infrequently crowded, together. Let him inquire of an attendant who has charge of a ward containing, it may be, more than a hundred patients, whether some of these are not at times in places where they cannot be seen, and whether it is possible for him to supervise the whole of his ward at any given moment. Ask a medical officer responsible for the care of a thousand or fifteen hundred lunatics if he knows them all, even by name; ask him the number of hours the medical staff has to devote to making reports, filling up returns, "keeping" statutory books, and other multifarious duties, apart from their true medical functions. Then let our inquirer compute the number of hours that would be occupied did each patient obtain the attention of a medical officer for one minute daily, and let him compare even this impossible amount of attention with that given to a medical case in an ordinary hospital by clinical clerks, medical registrars, resident and visiting physicians. A further inquiry in regard to the general character of asylum attendants would show that these are not, as a rule, the monsters in human form whose sole amusement consists in promenading on the forms of their prostrate charges, as they are commonly depicted in the panic sketches, but that they earn the gratitude and friendship of many of the five or six thousand persons annually discharged recovered from these institutions. If the inhumanities charged against asylum attendants were so rife, surely some of the thousands yearly liberated would bring their grievances before the public. That black sheep may be found among them, as in other classes, is only to say that they are human; but to assert that they are generally inhumane is a libel on a class of persons, many of whom bring to the discharge of their duties untiring patience and sympathy, deserving of high praise. That asylum attendants are comparatively deficient in special technical training is only one result of the insufficiency of the medical staff of asylums; improvement in this respect would do much to remove the ignorance that prompts to the employment of force in place of skill.

The conclusions to be drawn from these considerations are: that opportunities constantly occur for patients to come into collision with one another, or with their junior attendants, apart from higher supervision; that the true cause for astonishment is the infrequent occurrence of such casualties, or that they are not more commonly overlooked by the inadequate medical staff.

The British public in its philanthropic moods is wont to point with pride to our gigantic, often palatial, pauper asylums; but this feeling might well be replaced by one of shame, that the practical utility of these costly structures is in many cases greatly impaired and their working rendered defective, by a mistaken parsimony in their medical equipment. If the cost of the medical staffs of these institutions be compared with their total expenditure, it will be evident that niggard outlay in this, their most important function, is indeed a "spoiling the ship for a ha'p'orth of tar."

We have for many years urged that these institutions should no longer be regarded as mere places of detention for lunatics, but as hospitals for the treatment of the insane, and that their medical organisation should be approximated to that of ordinary hospitals. In asylums adjacent to London this could be effected with little additional cost, with great advantage to the treatment of the insane, and with an increase of skilled supervision that would reduce the possibility of undetected injuries to a minimum.

A weekly contemporary quotes a definition of manslaughter as "death caused by the culpable negligence of someone on whom the law casts a duty," and in this way would convict of manslaughter the authorities of an asylum in which such a death occurs; if this were admitted, some share in this indictment should also be borne by the Commissioners in Lunacy who tolerate the existing defects.

We trust that both the Lunacy Commissioners and the Asylum Committees will appreciate at length the necessity for a more thoroughly medical organisation of our pauper asylums, and until this is done we venture to predict that the public will still be horrified from time to time by the deplorable incidents we have had under consideration.

AFTER taking the initiative and originating the agitation which has culminated in the appointment of a Royal Commission by the House of Lords to investigate the Sweating System as practised in the East-end of London, we have sought to carry the question further afield. Consequently we have prepared and published special and lengthy reports on sweating at Liverpool, Manchester, Birmingham, the Black Country, Leeds, Edinburgh, and Glasgow. This has been a work fraught with many difficulties and some personal risks, but it has resulted in the collection of a mass of evidence which clearly establishes that the grievance exists in the provinces as in London, and that there is as much need for inquiry there as here. We have also shown that, so far as the interests of public health are concerned, legislation is urgently required that will affect not merely the sweating dens, but also the first-class order shops and the private homes of the individual workers. In this respect the evidence collected in each town, in each great centre, always coincided. There were master tailors who worked for the best families in the district, who charged the highest prices and paid their workpeople the best wages in the trade, and yet were content to provide workshops that were as dirty, as overcrowded, as badly ventilated and drained as some of the sweating dens. Indeed, it often happened that, from a sanitary point of view, the sweater's workshop was preferable to the workshop where gentlemen's

clothes are made to order. Sanitary regulations must therefore be enforced with even hand in all branches of the trade.

It does not follow that because a customer pays a large price for his clothes, and orders them from a tailor of the best repute, that they will be free from the danger of contamination. Not only may these clothes be contaminated, but they may be made by sweaters. Even where the customer—to relieve his anxiety—is shown into the workshop, it will often be found, on closer inquiry, that it is only the coats that are made in such places. The trousers and vests are given out to be made elsewhere—sometimes by home workers, sometimes by sweaters. This is more particularly the case when the clothes have to be made in great haste. The customer will do something towards abolishing the sweating system by ordering his clothes well in advance, so that the master tailor may have time to have them made by his own hands and on the premises. But, unfortunately, the tendency on the part of master tailors is to employ a smaller and still smaller quantity of workpeople and to send their orders out to the sweaters. It is therefore really necessary that the public should know how and where the clothes they wear are made. At present, though the customer may pay the highest prices, go to a first-class tailor, and even visit a model workshop that may possibly be shown to him, still he is not safe. If the coat is put together in the model workshop by men who are fully competent and receive a good rate of wages, the trousers and waistcoat, we repeat, may either be given over to a sweater or taken to the private home of some journeyman tailor.

The question of work done in private homes is a very serious matter. In every town visited a special point was made of this phase of the problem. By home work both sanitary laws and the Factory Act are defied. The tailoress remains the regulation hours in the order shop, in a factory, or in a sweater's workshop; but then she takes more work home, and there continues to labour, though she has already done the ten hours' work, which is the farthest limit fixed by the Legislature of this country. Also the workshop or factory may be in a good sanitary condition, but who shall answer for the state of the private and poverty-stricken homes, tenements, or lodgings, where the tailoress takes the work during the night? Sometimes the wages book is shown, and the visitor alled upon to believe that the workwomen are earning an ample livelihood. This would be the case if they only worked the stipulated number of hours; but when to these we add the night-work done privately at home, and the help perhaps received from friends or relatives, then the pay will seem shamefully insufficient. Again, there is much to be said concerning the irregularity of employment Wages should never be judged by a weekly return, but by a yearly average. As the tailors remarked at Liverpool, they "often did nine days' work in a week." The private purchaser can do a great deal to remedy this by not waiting until the last moment before ordering his summer or winter suits. The great companies that require many uniforms, and, above all, the Government and the municipalities, can do still more by giving their orders in the dull season. This was advocated at some length in the report on sweating at Edinburgh. In Liverpool, the most urgent representations were made to our Commissioner against overtime; so much so, indeed, that the tailors showed themselves disposed to see the provisions of the Factory Act extended to male adults. The better class tailors were also very willing to place their private homes under sanitary inspectorship. It is under the cover of the secrecy which the privacy of the home renders possible that most of the abuses have arisen. Throw these private homes open to the sanitary and factory inspectors, and it will be possible to control at once the hygienic and the economic condition of the workers.

With regard to extending the provisions of the Factory Act to the adult male population, it will be objected that this will expose England to disastrous foreign competition, as abroad even longer hours are worked. On the other hand, it must be borne in mind that at the great International Congress of Hygiene held in Vienna last September the extension of the principles of our Factory Act to the male population was approved by the adoption of a resolution in favour of an International Ten Hours Bill. For the preservation of public health the representatives of thirty nationalities endorsed the opinion that ten hours' work was enough for men as well as for women; and, to prevent unfair competition, it was agreed that such rules should be equally applied by all civilised peoples. Some of the governments of Europe are not indisposed to entertain proposals of this description; and it is hardly necessary for us to say that, so far as the health of the community is concerned, the limitation within reason of the hours of labour must be beneficial. Overtime, or the excessive prolongation of labour, is doubly injurious, first to the health of the overworked, and secondly to those whom such overwork keeps out of employment, and who too often are thus deprived of the necessities of existence. Frequently, in the tailoring trade, we have found that, while one tailor is working sixteen hours a day, another is literally starving in idleness; both are therefore injuring their health, and thus compromising not only their own existence but that of their children. These are the sort of influences which cause a population to degenerate, and which the great publicity given to such questions must help to remove.

DR. RUSSELL, medical officer of health for Glasgow, has now issued a complete history of the peculiar outbreak of febrile disease which took place in March last in St. Mary's Roman Catholic Industrial School in that city, and he includes in it a note on the clinical aspect of the disease by Dr. SAMSON GEMMELL. The disease commenced on March 2nd, when a boy, complaining of headache, was sent to bed in his dormitory. Next morning, when he rose, he was noticed to be unsteady, and was hence sent to the sick-room, where he died at 8 A.M. Four other boys died with much the same rapidity, generally after becoming unconscious, by the 8th of the month; and then followed no less than thirty-one attacks between that day and the 13th. With intervals between two fresh batches of attacks, 66 boys and 2 girls in all sickened, out of a total of 207 boys and 194 girls, the only girls attacked being two who worked in a kitchen common to the two schools. Amongst the more prominent symptoms were headache, nausea and vomiting, pain down one or both

sides, a temperature of from 102° to 105° F., pneumonia in seventeen cases, herpes and certain spots about the skin, such as purpuric and other patches. The disease was practically limited to one of two kindred institutions—namely, the boys' school; and it was found that no special set of boys was exempt, whether age, condition, habits, or location are considered. The schools lie near an old burial ground, where many who died of cholera in 1848 were interred, and which has been used for recent interments until it is both greatly overcrowded with bodies and in a state of rank disorder. The schools were remarkable for general unhealthiness, for their unwholesome position, for overcrowding, and for maintained prevalence of infectious disease; the boys' school being in almost all respects the worse of the two. Pneumonia and chronic lung disease were also very constantly prevalent, especially amongst the boys, the disease being associated with deficient air space both within and without; and in the face of these conditions, such ameliorations as were carried out had, practically, no effect in improving the standard of health. An institution thus unhealthy serves to receive the waifs of a large city, tainted with a proclivity to scrofula, and generally of low vitality; and amongst the causes of death that usually prevail there, that from pulmonary mischief has been enormous. After considering the special outbreak clinically and etiologically, one is bound to assume, with Dr. RUSSELL, that the disease in question bore much resemblance to a specific febrile affection tending to implication of the lungs and to pneumonia. The post-mortem appearances also went to indicate a poison much resembling that of enteric fever, and, as is pointed out in the report, much is already known that suggests a causal affinity between certain forms of pneumonia and enteric fever. The prevalence of an epidemic pneumonia is also now generally recognised, the disease being at times of a pythogenic type. Dr. FINLAYSON, who saw some of the cases, believed them to be instances of epidemic or infectious pneumonia; Professor GAIRDNER was inclined to style them influenza of a malignant type; but Dr. GEMMELL regarded the clinical features as pointing not so much to the epidemic type of pneumonia as to the same disease having a local origin, and telling with exceptional severity upon boys of low constitutional vigour living under unwholesome circumstances. The possibility of a chemical poison due to changes in food was excluded, because both the girls' school and the boys' school were dealt with alike as regards food supplies, and the only two girls affected had been working in the boys' school. A number of somewhat similar occurrences in other places are recorded by Dr. Russell in the report he has prepared; but whilst the story is interesting in the extreme, we find much the same difficulty that he does in distinctly assigning to the disease any special name, and in expressing a definite opinion as to the precise condition by which it was induced. There seems, however, little doubt that the condition in question was either included in, or brought about as the result of, those grave sanitary defects under which the children of this school have been aggregated together, and it is to be hoped that those who are responsible for this condition of things will forthwith take the proper measures to secure their remedy.

Annotations.

"Ne quid nimis."

THE CASE OF THE LATE EMPEROR FREDERICK.

A COPY of the report in German issued in Berlin by a majority of the German medical men lately in attendance on the Emperor Frederick has been brought to our notice. A summary of a portion of this has been published in the daily press, and has naturally excited the deepest attention. The report certainly appears to us to be of an *ex-parte* nature, and, until the reports of the other medical attendants on his late Majesty are produced, of a one-sided character. Some of the statements in this document are so strong and so grave that we feel it would be unjust to make the slightest comment until these additional reports are also before us. We wait with anxiety for further evidence, fully prepared when the proper time shall arrive to criticise the case in its entirety.

THE LATE ELECTION OF COUNCILLORS AT THE ROYAL COLLEGE OF SURGEONS.

ONCE more have the Fellows of the College discharged their ephemeral duty in personally repairing to Lincoln's-inn-fields and recording their votes in favour of their chosen candidates. The majority of votes were given to Messrs. Cadge, Bryant, and Pick. Mr. Cadge, a provincial surgeon, and one of the least conservative of the three in his leaning, headed the poll. We notice that one candidate, out of ninety-three votes, secured no less than eighteen plumpers. This practice of plumping appears to be foolish and undignified; it is far better to vote for as many candidates as there are vacancies; and considering how infinitesimal the exercise of any Fellow's privilege is on Collegiate discipline, it is not asking too much that his individuality should be impressed on each vacancy, and that he should be competent to select the best number of men for the number required. We cannot imagine that the defeated candidates are much to be pitied; any really independent man would soon chafe under the rub of traditions, and tire of the monotony of routine in the council-room. We cannot but think that some special inducements must exist in explanation of the long-suffering and tenacity therein exhibited; or possibly, amongst the *secreta Collegii*, some precious balm is stored for assuaging or preventing such sources of irritation and *ennui*. Nor are we by any means surprised at the resignation by surgical leaders and men of high fame of their seats on the Council, or of the disinclination exhibited by our best men to offer themselves as candidates. The position of an enlightened administrator at that board is not an enviable one; his steps in progress are hampered by the trammels of officialdom, and he retires disheartened. The interest evinced by the Fellows in the recent election was small; only 180 Fellows took part in it; this want of sympathy is due partly to the marked indifference of many Fellows to collegiate matters, as well as to the restraining inconvenience of personal service. Moreover, its tameness may be accounted for from a general feeling that it was the last to be conducted on ancient lines and under ancient influences. Now let us consider the position of members of Council towards those Fellows who have elected them. After the day of election, so far as the transaction of business is concerned, or the discussion of collegiate subjects of interest (surgical, social, or political), the twenty-four elders inside bolt the College doors against the Fellows outside. For eight long years the councillor is master of the situation; he can snap his fingers at any complaining or indignant Fellow or Member; he, individually, exercises more power, more influence, than the

totality of Fellows and Members outside the Council; even at the annual meeting a Fellow's control over his representative is *nil*. He may speak, he may vote; but neither speech nor vote carries any direct power over the Council. We are of opinion that the present octennial duration of a councillor's existence is far too long; and that his power for good or evil should be reduced in time by one-half; the arrangement that six men should retire annually from the Council, instead of three, would fulfil this condition. This proposition was made to the Council by the Association of Fellows, but the committee of Council refused to entertain it, giving as its reason that "the usefulness of any member of the Council very largely depends on his experience of all the varieties of College business, whether in the Council or in the several committees." By parity of reasoning, we think that his harmfulness very largely depends upon the time allowed him for the exercise of his function. But the increasing force of these complaints on collegiate custom does not augur well for the College. We uphold the truism that the strength of any body corporate depends upon the strength of its individual component parts; that the house divided against itself cannot stand; and that a comprehensive yet moderate reform would tend to promote the well-being of the College, raise it in the estimation of its Fellows, Members, and the public; and render its working more pleasant and effective by reducing to a minimum the friction of many against the counter-stroke of a few.

THE DETECTION OF SACCHARIN.

THIS product, prepared from that apparently never-ending source of new compounds, coal-tar, has now found its way into so many valuable therapeutic preparations that the identification of its presence has become important. Its composition is expressed by the formula $C_6H_4\left\{\begin{matrix}CO\\SO_2\end{matrix}\right\}NH$, and the name given to it by chemists is, therefore, benzoyl sulphonic imide. It combines easily with bases—indeed, even with alkaloids; and displaces the carbonic acid in alkaline carbonates, salts being formed which are very much more soluble in water than saccharin itself, and which do not lose in any degree the well-known powerful sweet taste. It is on account, in fact, of its poor solubility in water that most of the saccharin preparations of commence contain it, combined with a base—carbonate of soda being very generally used. If to such a solution a little sulphuric acid be added, saccharin is thrown down as a white amorphous powder. With alkaloids, such as quinia and morphia, the reverse is the case; they are soluble in acids, forming salts from which the alkaloid may be precipitated by the addition of a base or alkali. Hence the following simple method for the separation of saccharin from preparations said to contain it, such as biscuits, bread, cakes, &c. The sample is macerated thoroughly with water, to which a little solution of carbonate of soda has been added. The liquid mass is then filtered, and the clear liquid made acid with a little sulphuric acid. It is then shaken up with ether. The ether will readily dissolve the saccharin which has been freed by the acid. The ether is then drawn off and evaporated, and if saccharin is present a white residue of intensely sweet taste will be obtained. The residue may be examined further. When saccharin is fused with a mixture of nitre and carbonate of soda the fused mass contains sulphuric acid. Accordingly, if the mixture is dissolved in water and acidified with hydrochloric acid, the addition of barium chloride gives a white precipitate of barium sulphate. Saccharin, when heated with a small quantity of caustic soda at 250° centigrade for half an hour, is converted into salicylic acid, which can be separated by the addition of acid and ether, and detected in the usual manner, an aqueous solution of salicylic acid giving a beautiful blue colouration with perchloride of iron.

THE PROGRESS OF THE ROYAL COMMISSION.

THE Royal Commission on Higher Education in London has now heard Sir George Young, Mr. Erichsen, Dr. Wace, Sir Joseph Lister, and Dr. Priestley on the part of University and King's Colleges; Professors Bastian, Graham, Lankester, Hudson, and Thomson as representing the professorial staff; the Bishop of London at his own request; Sir Andrew Clark, Sir Henry Pitman, Mr. Savory, and Mr. Bryant on behalf of the scheme of the Royal Colleges of Physicians and Surgeons; and Lord Justice Fry, Sir James Paget, Sir John Lubbock, and Dr. Wood as representing the Senate of the University of London. Sir P. Magnus, Mr. Anstie, and Dr. W. J. Collins will be called on Saturday next to express the views of the members of Convocation of the University; and Dr. Allchin will attend as representing the wishes of the staffs of several of the medical schools. Dr. Norman Moore, Dr. Bristowe, and Mr. Rivington have been appointed to give evidence on behalf of their respective schools; and Mr. Marshall has still to be heard for the Association for promoting a Teaching University in London. So that, unless representatives of the Scotch and other Universities and other interested bodies are also forthcoming, the evidence will soon be brought to a close. Whatever may be determined on by the Commission as regards the medical difficulty, we hope that no credence is to be attached to the rumour that a proposal has been made by the authorities of the University of London to institute a second medical degree of a much lower standard than the present, differentiating it from the M.D. London by some such title as "M.D. Middlesex."

SUSPENSION OF THE UTERUS FOR PROLAPSUS.

DR. MALANCO has recently brought before the Mexican Academy of Medicine an operation which was practised for the first time more than three years ago for the relief of prolapsus uteri, and which, it is claimed, possesses advantages over the use of pessaries and over Alexander's operation of shortening the ligaments. The Mexican operation is denominated "suspension of the uterus," and it has been performed during the course of the last twelve months no less than eight times in the hospital Angel Gonzáles Echeverria in Mexico, the unilateral and the bilateral operation being each employed four times. In all the cases the results were satisfactory in a greater or less degree. The operation consists essentially in making a track, whose walls become indurated and indistensible, between the fundus of the vagina and the external surface of the abdomen just above the horizontal ramus of the pubes. At first it was proposed to employ the thermo-cautery, but this was abandoned on account of the danger of the heat given out by it affecting the peritoneum, and also because it was found that the retraction caused in the subperitoneal cellular tissue was insufficient, though that set up in the dermis is, as is well known, considerable. It was then determined to pass a thread or ligature through the track, and thus temporarily to tie the vagina to the abdominal wall until the tissues had become sufficiently retracted. Catgut was employed for this purpose, but, though admirable for its antiseptic qualities, it did not last long enough to accomplish the desired effect. A thread of silver wire has latterly, therefore, been substituted. This is made into a loop, which passes round a bit of metal in a piece of gum-elastic catheter, which acts like the quill in a suture, and is retained in the vagina. The other end is passed out above the pubes, and retained by a piece of lead. Iodoformed ether is injected into both extremities of the canal. Cotton-wool and collodion impregnated with corrosive

sublimate is applied to the external wound, and frequent antiseptic irrigations are practised per vaginam, with the object of keeping the internal wound free from septic matter. There is no need to tighten the wire much. It is then well borne, and it can remain until the track around it becomes lined with tissue of a sufficiently resistant character. This of course forms a hollow cord connecting the vaginal mucous membrane with the skin of the abdominal wall. In one case by some accident the wire got broken in a fortnight. This was quite time enough to fix the uterus in its proper position. If, however, this kind of thing happens, there is no difficulty in passing a new wire without making any fresh wound. Indeed, the patient herself may be taught, in case of need, to reapply the wire ligature. The advantages of the suspension operation over pessaries are said to be that the vagina is not obliterated or dilated, the neck of the womb is not irritated, and the facilities for cleanliness are perfect. It is expected by the Mexican practitioners who have devised the operation, that it will be much practised abroad, and they even suggest that the credit of its invention will probably be claimed by some foreigner!

WHAT IS THE PRESENT POPULATION OF OUR LARGE TOWNS?

ON Monday evening last Clause 30 of the Local Government Bill was so amended, on the motion of the President of the Local Government Board, that all boroughs which on the 1st of June, 1888, had a population of not less than 50,000 will by the Act be constituted as counties, and will be exempt from the jurisdiction of the County Councils. In the discussion which took place upon this amendment, and on a further amendment to the effect that all boroughs having a population of 25,000 should be exempted from the jurisdiction of the County Councils, Mr. Ritchie explained that it was the intention of the Government to exempt "any borough which gave to the Local Government Board satisfactory proof that it now had 50,000 inhabitants." Bearing in mind that it is now more than seven years since the last census was taken, it will be more than interesting to know the nature of the "proof" that will be held by the Local Government Board to be "satisfactory" as to the present population of our large towns. There are many towns, judging from the population enumerated in 1881, that must now be on the border-land of that coveted 50,000 inhabitants that will entitle them to be exempted from absorption in the County Councils, and to existence as separate counties. The marked and long-continued commercial depression which has undoubtedly affected the growth of towns since the last census forbids the acceptance of the Registrar-General's usual hypothesis that the rate of increase of population since 1881 has been the same as that which prevailed between 1871 and 1881. To take a single instance: the population of the borough of Barrow-in-Furness increased from 18,774 in 1871 to 47,100 in 1881; but who would assert that this phenomenal rate of increase has been maintained since 1881, even if it were not well known that this town, as a centre of iron production, has specially suffered since 1881 from the exceptional depression, which must for a time have more than paralysed its rate of progress? What shall be deemed satisfactory proof of the present population of Barrow-in-Furness? This question of the population of our large towns in intercensal years is one of constantly increasing importance. It has been held that the rate-books afford almost the only satisfactory means for estimating such populations, but medical officers of health who have sought assistance from this source know only too well how unreliable is the information thus obtained. There is no uniformity in the system on which these books are kept; there is no consensus of opinion as to the definition of a house; there is difficulty from compounding for the payment of rates; and there is inevitable difficulty about the average number of persons to a house, which is the crucial element of all population estimates based upon the number of inhabited houses, even if this can be ascertained. With regard to the twenty-eight largest English towns dealt with in the Registrar-General's Weekly Return, that official announces his inability to frame satisfactory estimates of the present population of Leicester, Salford, Bradford, Nottingham, Newcastle-on-Tyne, and Cardiff, although he has been furnished with information as to the inhabited houses on the rate-books of those boroughs. All interested in the vital statistics of our large towns will therefore anxiously await the decision of the Local Government Board as to what constitutes "satisfactory proof" of the present population of our large towns. It is, at any rate, gratifying to learn that the Local Government Board have at the present time under their consideration a memorial from the Council of the Royal Statistical Society urging that, when the next Census Act is submitted to Parliament, power shall be taken to hold intermediate quinquennial enumerations of the population of all large towns, and of such other urban aggregations as may at the time of such intermediate census appear to be desirable. It is earnestly to be hoped that the present dilemma in which the Local Government Board is placed—its necessity to decide what is "satisfactory proof" of the present population of our large towns—will incline them favourably to consider the application of the Council of the Royal Statistical Society in the interest of all concerned in the construction of urban vital statistics, and of sanitary progress generally.

THE INFLUENCE OF SCARLATINA HOSPITALS.

IN his annual report on the sanitary condition of the Hackney district during 1887, Dr. Tripe discusses the question of the possible spread of scarlatina from the Metropolitan Asylum Board hospital within that district, and he sets out a table showing the number of infected houses, the percentages of houses infected to total cases, the mean number of houses infected to total cases, and the percentage of houses in certain radii to total houses. Under each of these headings statistics as to scarlatina are given in the several quarter-mile zones up to a mile, and then outside the mile radius. The arrangement followed differs from that which has been resorted to in the case of small-pox diffusion, and, in order to show that there is possibly similar diffusion of infection in the case of scarlatina, the material for three separate years—viz., 1882, 1886, and 1887—has to be dealt with *en masse*. But last year, when dealing with the information available to the end of 1886, Dr. Tripe, to use his own words, "arrived at the conclusion that the evidence up to that time showed that, unlike small-pox, there was not such an aggregation of cases in the vicinity of the hospital as to lead to the belief that the disease was spread from it by aerial infection"; and even now we do not gather that he distinctly attributes a scarlatinal diffusion to aerial agencies, although it is difficult to understand how personal infection from one single centre can properly account for the circumstances he refers to. And, looking at the table, we find extreme difficulty in discovering from the returns for 1887, whether standing alone or in conjunction with that of the previous two epidemics, sufficient data to explain a complete change of opinion. Then again, as Dr. Tripe himself admits, he does not receive information of the existence of scarlatina in more than a small proportion of the houses of the more wealthy classes, and hence the "comparisons and conclusions are open to grave objections." The truth is that the data as yet obtained in Hackney do not suffice for a judgment on the

subject; and we are further inclined to doubt whether, even if such as are set out in the table accompanying the report could be regarded as sufficient, they go to prove that the aggregation of scarlatina cases tends to the same result as has been found to be the case in small-pox. Any trustworthy contributions to the elucidation of the subject have distinct value; but, as Dr. Tripe himself says, the inquiry must be extended over a longer period and over a wider area before a definite conclusion can be arrived at. We feel also that the statistical data on which any opinion is expressed must be complete.

PATHOLOGY OF THE GANGLION OF THE TRUNK OF THE PNEUMOGASTRIC.

DR. ALEXANDER LEVIN, chief of Professor Manassein's Clinic in St. Petersburg, has published as his graduation thesis an interesting series of observations on the pathological changes in the ganglion of the trunk of the pneumogastric nerve in different diseased conditions. He examined this ganglion in 102 bodies where during life there had been disease of some of the organs receiving their nervous supply from the pneumogastric, including cases of heart disease, pulmonary phthisis, and croupous pneumonia, or where the patient had suffered from some general disease, such as typhoid, scurvy, diphtheria, cholera nostras, hydrophobia, and others. He finds that in typhoid the ganglion is frequently affected by an inflammatory process, there being marked hyperæmia, and sometimes extravasation of blood or granular changes in the nerve cells, which leads to their atrophy or breaking down, and to hyperplasia of the connective tissue of the nerve. These morbid changes have as their result, as Dr. Levin believes, typhoid laryngitis and paralysis of the pharynx, cardiac irregularities unconnected with high temperature, the so-called "sudden death of typhoid," spasmodic dysphagia and vomiting, and finally dilatation of the stomach, observed by many authorities in cases of typhoid. In cardiac disease the pneumogastric ganglion is found to be affected by chronic venous stasis, extravasation of blood, thickening of the external tunic of the small vessels and of the walls of the nerve cells, with degenerative changes in these last. This condition of the ganglion may perhaps be connected with special forms of irregularity observed in cardiac cases, in chronic pneumonia, and often existing in aortic aneurysm, and also with paralysis of the pharynx and vomiting observed in some cases of heart disease. In pulmonary phthisis the ganglion of the pneumogastric is found to have undergone degenerative changes of the nerve cells, which are atrophied, shrunken, or eaten away, the stroma being at the same time hyperplasic.

IMPORTATION OF DIRTY GRAIN.

THE acres of the British farmer have long ceased to yield a corn supply sufficient for the national requirements. Imports of foreign grain therefore, however undesired by home growers, are advantageous to the population generally, provided of course that their quality can be guaranteed. The fulfilment of this all-important condition unfortunately cannot always be relied upon, and the cheap loaf, that valued memorial of free trade, is consequently a somewhat discounted benefit. By way of illustration we need only refer to a recent report by Miss Ormerod at a meeting of the Royal Agricultural Society. The observations contained in this paper go to show that the cleanliness of foreign grain occasionally leaves much to be desired, and that some cargoes of corn are almost alive with weevils. The effect of this potent though apparently insignificant pest is well known. The question of its eradication is as much one of profit as of taste, since the grain which it has inhabited and reduced to a mere husk is obviously of no market value. The presence of a few of the insects in a relatively large bulk of corn is doubtless of no great moment, and it is not easily avoidable; but a cargo populated by them is for the luckless buyer and the consumer a more serious consideration. We are no advocates for trade protection, but we must contend for a reasonable degree of official oversight on behalf of the public health and the food supply of the country. In the case of goods so obviously faulty as the grain above mentioned the tax of confiscation is not unduly heavy, and it should, if occasionally exacted, act as an effectual check upon the culpable carelessness of exporters.

CHOLERA IN EAST SICILY.

THE municipality of Messina are, we fear, showing more energy in contradicting reports as to the appearance of cholera in their town than in taking steps to keep out the invader. The cases of illness to which the adjective choleraic has been applied are only, they say, cases of epidemic gastro-enteritis, which, occurring for the most part in the neighbourhood of the harbour, have found ready and widely diffused acceptance as cases of cholera. Meanwhile, other local authorities are not of the same view as the municipality, but maintain that cholera has indeed effected a landing in Messina through a merchant ship lately arrived from Bombay with grain on board. Be this as it may, there can be no doubt that if ever city made itself a "candidate" for a cholera visitation it is Messina. For one thing, its water supply, at the best of times inferior as to quality, is sadly defective in volume and in regularity of distribution, while the chief conduit is in many places broken and leaking. The people do not share, it may be added, the municipality's sense of security. The dread of a return of the frightful mortality and misery of the last few years has produced an almost frantic excitement, and already the house of the syndic (or mayor) has been mobbed.

TECHNICAL EDUCATION.

ON any question relating to industrial development Lord Armstrong writes with an authority second to none, and it is therefore with great satisfaction that we find him reiterating and enforcing the views which we ourselves recently put forward upon the subject of technical education (THE LANCET, vol. i. 1888, p. 1040). We then spoke of the importance of developing the faculties of the child by this means, and pointed out that something quite different from a mere anticipated apprenticeship was required, both from an economical and a hygienic point of view. Looking at the same problem from the standpoint of a large and enlightened employer of labour, Lord Armstrong discerned the same features in the case. He deprecates any attempt to teach trades to school children, knowing full well that this can better be done when they come in riper adolescence to enter the factories and workshops where actual work is being carried on. But he also points out how great is the advantage to the grown man or woman of coming into possession, when mature age is reached, of mobile and manageable fingers and of trained eyes and ears. Knowledge, as distinct from the faculty of acquiring it, he estimates at a comparatively low value, since the knowledge that can be imparted to a child is necessarily of a somewhat vague description, and in most cases not such as will prove to be of any use to him in after-life. And this must be admitted to be in a large measure true. Orthography is of much less importance to a stonemason than a knowledge of the structure of stone, or to a bricklayer than the use of the plumb line. But the answer to such an objection to the ordinary curriculum of our elementary schools is that the

special knowledge of one trade is even more completely useless to the craftsman of another than is the general knowledge which has of late been so unsparingly denounced as "bookish." Nothing would be gained by substituting the study of chemistry for the study of grammar in ninety-nine cases out of a hundred, and something would in every case be lost. We doubt therefore if it is necessary, or even wise, to depreciate the studies to which by our present system the attention of children is chiefly directed, but we heartily concur in the opinion, expressed both by Professor Huxley and Lord Armstrong, that the present system is insufficient and does not adequately develop the faculties of the young. We think, further, that they have very wisely fixed upon drawing as a subject of study eminently fitted to train both eye and hand, and one to which, therefore, a much more important position might with great advantage be assigned than it at present occupies.

A CASE OF PHOSPHORUS POISONING.

AN inquest was held on July 4th at the St. Pancras Coroner's Court by Dr. Danford Thomas touching the death of Frances A. Cowley, aged twenty. The deceased, by her own admission, took some rat paste on Tuesday, June 19th. Death ensued eleven days later. The initial symptoms were not very marked; in fact, so slight were they that her husband did not believe her confession, and consequently took no active steps to enforce proper treatment. Nausea and vomiting continued with moderate severity for a few days, and then ceased. There ensued a feeling of depression. Towards the end, insensibility, icterus, and somewhat profuse metrorrhagia supervened. At the necropsy the skin and conjunctiva were observed of a bright yellow colour. There was no organic disease save of a recent nature, and entirely attributable to the action of the poison ingested. The stomach contained about three-quarters of a pint of dark claret-coloured fluid, consisting largely of blood derived from capillary hæmorrhage from the mucous membrane. There was no solution of continuity of the mucous membrane, which showed traces of recent irritation. The whole surface presented a yellow icteric tint, except the summits of some of the rugæ, which were of a bright pink colour. There was also faint wrinkling of the mucous membrane. The upper part of the small intestine was affected in much the same manner as the stomach. The large intestine contained a quantity of almost colourless fæces. The liver was shrunken, weighing only twenty-six ounces, and both on its outer and sectional surface exactly resembled the appearances produced by acute yellow atrophy, except that there were greater congestion and interstitial hæmorrhage in patches. The lobules of the liver were in many places unrecognisable; in others they stood in bold relief as brilliant canary-yellow patches, standing in strong contrast to the deep dark-red areas of congestion and extravasation. The gall-bladder contained about two drachms of thin greyish fluid, apparently all but devoid of bile. The urinary bladder was empty; the kidneys were enlarged; the cortex was very pale and bile-stained, of greater depth than natural, and of softer consistence. The spleen was not enlarged, nor was it in the least degree softened. In addition to the bleeding from the uterus noticed during life, there was capillary hæmorrhage into the right lung and pleura, into the pericardium, and, as already mentioned, into the stomach. The brain was healthy. The chief points of interest in this case are: (1) The profuse hæmorrhage—parenchymatous and surface—a well-known result of phosphorus poisoning, and constituting a section into which a certain number of the cases fall; (2) the almost identical changes in the liver with those incidental to the disease known as acute yellow atrophy; indeed, it seems possible that some of the instances of the latter affection may really own phosphorus poisoning as a cause. It used to be said that the size of the liver in the two conditions afforded a guide for making a differential diagnosis; but, as will be seen from the above case, it may signally fail. We shall probably have occasion later on to refer to the microscopical changes of the liver.

THE HUNTERIAN MUSEUM.

FEW Fellows of the College would fail during their attendance at the recent election to visit and inspect the additions to this museum which have been made during the past year under the direction of Professor Charles Stewart. These are equal to those of previous years, and possess great interest. In the department of Comparative Anatomy the development of the bones is shown in three human skeletons, aged fourteen, sixteen, and eighteen years respectively. Professor Stewart has arranged an instructive series of preparations, which show the organs of aerial locomotion in vertebrates and lower forms of life. Numerous other additions have been made, amongst which are some fine dissections, illustrating the anatomy of the gorilla. Mr. Eve has prepared another appendix to the catalogue, containing descriptions of all the specimens added during the current year. Considerable efforts are being made to render the whole museum as perfect as possible, and deficiencies in any department have been notified to those in a position to supply the needed specimens.

"TOUTING" AT HOME AND ABROAD: BOMBAY.

A MAGISTRATE in a London Police-court the other day had his attention directed to the fact that a young solicitor came early to the court and waylaid possible litigants with offers of service. His worship very properly directed that if such practitioners were again found about his court he was to be informed. When and where shall we look for such action in respect of our profession? The evil is rampant. Every week brings us a pack of handbills, circulars, and advertisements that would discredit a second-rate greengrocer. And our Colleges take little or no notice. One bad specimen is before us from Bombay, in the shape of a circular addressed to the offices of steamship lines trading with Bombay, by a gentleman who signs himself James Monday, M.R.C.S., L.R.C.P., L.M. After disparaging the qualifications of other practitioners in the field, he descants with an air of complacency on his great achievements in the diploma line thus: "I passed my final examination in Bombay in 1875, proceeded home in 1880, obtained the diploma of the Royal College of Physicians, and also the Royal College of Surgeons of Edinburgh, coming third on the pass list of forty-seven successful candidates. Am married, aged thirty-five years, and a registered London practitioner!" Here are one or two more illustrations of his style: "I have just commenced practice in this Harbour in hopes you will kindly extend your patronage to me *(Englishman)*. ..... I am willing to attend professionally your vessels (captain and crew) for the following amounts. ..... This, I know, will compare very favourably with what you have hitherto paid." The *Bombay Gazette* was asked to call attention to this discreditable document; but very naturally declined publishing such rubbish on the ground that there must be other ways of dealing with it. Our lay contemporary's remarks are worth quoting. Those aggrieved by the circular's disparaging remarks are referred to a magistrate, and, adds the *Bombay Gazette*, "the Royal College of Surgeons at home might be asked to express their opinion on the question whether touting for practice is in accordance with the manners and customs of the profession." We beg the attention of the two Edinburgh Colleges to this natural and respectful remark

of our Indian contemporary. If the colleges "at home" allow their associates to publish such things and to violate all professional taste and decency without protest, the public will conclude that the diplomas can be of little value, and that the possession of them is no guarantee of either literary or scientific culture. We advise those "aggrieved" to send specimens of this circular to the colleges whose diplomas are dragged down to such uses.

TREATMENT OF THE UMBILICAL CORD.

DR. PH. PH. FAGONSKI publishes in the *Vrach* some observations on the different methods of dressing the unbilical cord after it has been tied. He employed four different methods in a hundred cases each: in the first series gypsum, in the second talc, in the third Runge's mixture (salicylic or boracic acid with potato starch), and in the fourth hygroscopic cotton-wool. In the first series erythema and intertrigo occurred five times, ulceration around the umbilicus four times, slight hæmorrhage from the cord seven times, and slight suppuration twice, dry gangrene or mummification of the cord occurring in every case. In the second series ulceration occurred five times, slight hæmorrhage ten times, suppuration forty-eight times, moist gangrene thirty times, and dry gangrene seventy times. In the third series erythema and intertrigo were noted three times, ulceration twice, hæmorrhage eight times, suppuration fifty-one times, moist gangrene sixty-five times, and dry gangrene thirty-five times. In the fourth series erythema and intertrigo occurred twice, ulceration three times, hæmorrhage four times, omphalitis followed by death twice, suppuration twenty-nine times, moist gangrene twenty-eight times, and dry gangrene seventy-two times. With regard to the time of falling off of the cord: in the first series it was usually on the fifth day (never later), in nineteen cases on the fourth, and in four cases on the third day; in the second series separation occurred in the majority of cases later than the sixth day, in six cases only being on the sixth day, in four cases on the fifth, and in one case on the fourth; in the third series the cord fell in four cases on the fifth day, and in the remaining ninety-six cases after the sixth; in the fourth series it fell on the fourth day in one case, and after the sixth in the remaining ninety-nine. It will thus be seen that the safest and best of these dressings is gypsum, but it must not be applied too liberally, for it is quite possible for it to set up erythema. Dr. Fagonski recommends that all cases should be dressed simply with 10 grains of gypsum on cotton wool.

A JUDGE ON BABY-FARMING AND INSURANCE SOCIETIES.

MR. JUSTICE DAY is well and favourably known as a very outspoken judge. One of his most recent utterances was made whilst presiding in the Crown Court at Salisbury. Among the cases before him was that of George Heys and his wife Mary Heys, who lived at Swindon and had seven children under their charge, for some of whom they had received lump sums for their keep. They were convicted not long ago by the magistrates for not having kept the register required by Act of Parliament from all persons having children in charge under such circumstances. More recently an officer from the Society for the Prevention of Cruelty to Children visited the house. He found one girl aged two years in a very weak state, neglected and dirty, unable to walk, and only weighing 10 lb., the normal weight being 24 lb. A boy was also found, aged three years, in a similar condition, his weight being 22½ lb. instead of 27 lb. Four of the children were insured in a Friendly Society. The prisoners were found guilty, and in sentencing the female prisoner to two years' and her husband to nine months' hard labour, Mr. Justice Day remarked that the prisoners received money in gross sums, and then devoted themselves, not to taking care of the children, but to getting rid of them through the instrumentality of one of those pests of society—those deadly societies which insured children. The prisoners had put themselves in a position to make a profit by the death of these children. They insured the children in one of those societies, which seemed to be instituted for the destruction of children, for the perpetration of murder. That was the effect of these societies wherever they existed, and such societies should have been stamped out by the Legislature long ago. The prisoners had been guilty of a cruel and infamous crime, and he regretted that he could not pass a severer sentence upon them. These remarks will not appear one whit too severe when taken in conjunction with the revelations made at the trial of Mary Ann Cotton at Durham in 1874, and of the women Flannigan and Higgins at Liverpool just four years ago. In the former case the prisoner was shown to have caused the deaths of twenty persons, mostly children, by poison, in order to obtain the club or insurance money. In the Liverpool case there were in all eleven victims, some of them being children; and nearly all had been insured by the prisoner Flannigan behind their backs, contrary to their own knowledge or that of their parents. Mr. Justice Day's remarks are most opportune, and should prevent the repetition of any such cruel treatment of children.

CREOLIN AND BACILLUS PYOCYANEUS.

DR. KLAMANN, writing in the *Allgemeine Medicinische Central Zeitung* on Creolin Dressings, gives some cases in which bacillus pyocyaneus was found in the dressings, and cultures of it obtained. This, however, did not appear to interfere with the healing of the wounds, but Dr. Klamann says that he never found this organism when gauze impregnated with corrosive sublimate or carbolised cotton-wool were used. He remarks that when a creolin lotion containing more than 2 per cent. is used for moistening the dressings they become unbearable from the pain produced. Latterly he has confined himself to dry creolin dressings, and is well satisfied with the results obtained. In case of burns he uses creolin oil of the strength of 1 per cent., and finds that this acts exceedingly well.

THE MEDICAL OFFICER OF HEALTH OF BRADFORD.

WE have received from the Town Clerk of Bradford a copy of a printed report of the Sanitary Committee respecting charges made by Dr. Hime as to administrative failure of the Town Council, and published in a medical contemporary on June 30th, 1888. This report deals *seriatim* with the statements made by Dr. Hime, and emphatically denies each. The Town Clerk writes that he leaves it to us to "determine as to the propriety of giving equal publicity to the statements of the committee as has been given to the other side of the question." We have, however, not published any such charges as those referred to. We have only expressed the sincere regret that we—and we are sure the profession—feel at the refusal of the Bradford Town Council to reappoint Dr. Hime at the termination of his five years of office. This decision has been arrived at by the Sanitary Committee, notwithstanding the active steps taken by important sections of the ratepayers to testify to their appreciation of the value of Dr. Hime's services as medical officer of health to Bradford, and in spite of petitions to the Town Council for his re-election. At that time Dr. Hime had made no public charges against the health administration of the town, and the Town Council, therefore, could not have been influenced by any such statement. They have themselves

borne witness to his capabilities, and have given no other reason for their action than that the sanitary committee were unwilling to work with him. There is one point on which we must differ from the opinion which we gather from the report the Sanitary Committee hold as to the re-election of officers appointed for a given term of years. "The doctor," they state, "knew perfectly well the terms of his appointment when he sought it; your committee merely decline to renew it in the same way as he might have done had he so wished; and it must be borne in mind that, although he was secured in his office for five years, every other officer of the Corporation holds office during the pleasure of the Council." Evidently the committee have not thought that Dr. Hime had any claim upon them beyond the five years for which he was appointed. The admission is useful, for it serves to show in the strongest light the mischievous tendency of appointments of this kind. Medical men applying for the office, if there are any, will understand what sort of future is before them. They may sacrifice all other prospects in life, they may perform their duties thoroughly, and at the end be told their services are no longer required. In the letter which the Town Clerk sends us he states that we shall observe that the committee have refrained from entering into a general discussion as to the reasons for not renewing Dr. Hime's engagement. We desire to add that we have observed this omission, and we bear in mind the statements as to Dr. Hime's capacity which were made at the time when the Town Council received the report of their committee recommending that he should not be re-elected. Not a single word was said in his disparagement; on the contrary, he was spoken of in terms of commendation, and the omission of the Sanitary Committee on the present occasion admits of but one interpretation. Taken in connexion with their evident sense of freedom from any obligation to re-elect their officer, it will doubtless have its effect upon any aspirants for the office.

HOLIDAY UNREST.

WHEN Midsummer Day is past the busily engaged and too frequently over-worked of all classes and occupations begin to think of the annual autumnal holiday. It is to many a matter of great concern how means are to be provided for the necessary change and relief to the monotony of daily duties. This difficulty overcome, the new one crops up of where to go and how best to spend the time. To quote a phrase attributed to the "Dictes of the Philosphers," published four hundred years ago—

"Of thought cometh the wakynge and unrestia."

The disquietude of over-thought and over-work appears to be no new experience, though it is now often attributed to the struggle of modern times. We have known instances of the heads of a household worried in the extreme over the perplexing question of where best to spend the autumnal holiday, so as to give the maximum of good and the minimum of evil to each individual; and at last, in a fit of desperation, this or that place is decided on from among the many holiday resorts to which numbers of our teeming population of city and town migrate. Too frequently the change is from one dense population to another scarcely less dense at the seaside or elsewhere, to which

"The people like a headlong torrent go,"[1]

with often the disadvantage of lesser domestic convenience, inferior sanitation, and amusement neither edifying nor pleasing, and a change of one form of unrest for another. This comes in too many instances from following the fashion and "doing as my neighbour does." It would be far better if our town population recognised that there is ample space for them in our rural districts within reach of populous centres by road or rail. Pretty rural retreats in scattered villages, apartments at comfortable farmhouses for those who can afford it, or a room or two in a cleanly cottage, with the quiet and soothing surroundings of country life, would tend to tranquillise the "unrest" of those who all through life cannot escape from it, except during their brief autumnal holiday. But it would be better, as Dryden wrote—

If the foolish race of men, who find
A weight of cares still pressing on their mind,
Could find as well the cause of this *unrest*,
Sure they would change their course.

[1] Dryden.

THE INFECTION OF SCARLATINA.

IN recording his experiences for the past year, Mr. M. A. Adams, the medical officer of health of Maidstone, expresses his belief that even in the mildest form of scarlatina the duration of infection is at times very prolonged. Six weeks from the first appearance of the rash is a very common term during which to maintain the isolation of scarlatina patients; it is the minimum period commonly required in most infectious hospitals, and Mr. Adams was himself at one time inclined to adopt the belief that this might be regarded as a safe limit to the period of infectiveness, and this the more so because it generally includes a period which goes well beyond the cessation of all desquamation. But on several occasions Mr. Adams has known the disease to be communicated by a convalescent who retained no obvious signs of ill health or infection as late as the forty-third day; and, in his opinion, the infection has in such cases been communicated by the act of kissing. He would therefore make it a rule to maintain isolation for a minimum period of seven weeks, and even then to give a caution against the habit of kissing. The retention of infection about the fauces for prolonged periods is well known to take place in the case of diphtheria, and it is possibly at times the same in scarlatina, even when no obvious indications of any throat affection remain. There are, however, cases in which patients returning from hospital have been credited with conveying the infection, when it is much more likely that the mischief has been induced by the bringing out of clothing which the patient wore a few days before being isolated, and which escaped disinfection.

THE NIGHTINGALE FUND.

FROM the statement issued by the secretary of the Nightingale Fund Committee, in his report for the year 1887, it appears there were 47 probationer nurses admitted during the year, making, with those remaining from 1886, 78 who were under training. Of those admitted during the year, 15 resigned or were discharged as unsuitable for the work, and 31 completed their year's training, 29 of whom were entered as certified nurses. During the period which has elapsed since the institution of the Nightingale Home in 1860, 549 have become certified nurses, and as many as 379 failed in obtaining certificates; but no distinction is made between the number who voluntarily resigned and those who were discharged as unfit for the duties of a nurse. As the candidates are all specially selected after inquiry and personal inspection, this is a large number to place amongst the failures from either cause. (This receives further point from the fact that 1500 written and 173 personal applications for information were received during last year alone.) Since the issue of the last report, Miss A. L. Pringle has been appointed matron and superintendent of the Nursing School. The thanks of the committee are given to members of the staff of St. Thomas's Hospital for their instruction to the nurses. The only time mentioned for home instruction is from 11 to 12.30—that is, at a time when ward work is at its height, and when it might be supposed that the probationers would be of great assistance.

At the branch at St. Marylebone Infirmary nine nurses had received certificates, and twelve were in training under the supervision of Miss Vincent. The abstract of accounts shows the following items of expenditure for training hospital nurses: at St. Thomas's Hospital, £1492 0*s.* 3*d.*; gratuities to certified nurses, £208; and contribution to expenses of the training school at St. Marylebone Infirmary, £152 15*s.*; with a balance in hand of £1462 3*s.* 10*d.*

ORIGIN OF SIMPLE ULCERS OF THE STOMACH.

AN evident correlation, M. Letulle asserts, may be observed between the evolution of an infectious malady and the development of ulcerating lesions in the stomach and intestine. At the necropsy of a case of puerperal septicæmia two recent hæmorrhagic ulcerations of the stomach were found. The subjacent venules were thrombosed; and the fibrinous clot contained a large number of streptococci, and the venous sinuses were stuffed with colonies of the same micro-organism. Experimental proof has been forthcoming, on the guinea-pig, of the production of mucous and submucous lesions, not only with pure cultivations from cases of dysentery, but also with the staphylococcus pyogenes aureus. The lesions have ranged from ecchymoses to vast rounded ulcerations threatening perforation of the experimentally dilated stomach. It is thought that some cases of simple ulceration of the stomach and duodenum may be ascribed to local growths of micro-organisms.

QUARANTINE IN THE WEST INDIES.

OWING to the difficulties met with under a system of quarantine, which varies in different parts of the British possessions in the West Indies, the Secretary of State for the Colonies has authorised the assembling of a conference, to discuss the desirability of inaugurating a uniform system for those possessions, and it is expected that the meeting will take place at Georgetown, British Guiana, in October next. Amongst the matters to be discussed are—firstly, the desirability of arriving at some understanding as to the meaning of such terms as epidemic prevalence, infected, &c.; secondly, the need for a uniform system of disinfection, and of dealing with persons and things which are placed in quarantine; and thirdly, the question of uniformity in the matters of coaling in quarantine, transhipping cargo in quarantine, and guarding vessels in quarantine. Apart from medical considerations, great interest is shown in the conference by the commercial elements of the population, who have had painful experiences of the varying, and at times useless, restrictions to which shipping and trade have been hitherto subjected in different parts of our West Indian possessions.

OPERATING WITHOUT PERMISSION.

OUR attention has been drawn to the account of an inquest recently held on a patient who had formerly been in the London Hospital, where amputation of the leg was performed. The verdict returned by the jury was "Death from shock" (*sic*). When we mention that this operation was performed four months previously, the usefulness of this inquest and the sapience of the jury may well be called in question. But there is another side to the question. The father made a complaint that the operation had been done without his consent; but until the inquest the hospital authorities had heard nothing of any resentment on his part with regard to this. It would appear that the patient was placed under an anæsthetic, as permission had been obtained to examine into the nature of an unusual swelling which had developed after a contusion of the thigh, and that this was found to be an extensive sarcomatous growth. There being no question as to the necessity for amputation, and as the child would have run grave risk if the condition had been left as it then was, and operation postponed, amputation was performed at once. The consent of parents to any operation is obtained as a matter of course in all cases, but at times the surgeon has to act on his own responsibility, and stand *in loco parentis*. That the father was satisfied at the time is proved by the fact that he left the child in the hospital, sent her back again later for a further operation when recurrence took place, and went again for medicine for her after she left altogether. A jury is guilty of grave injustice to a hospital when no opportunity of replying to the charges brought against it is given to the authorities.

CHILDREN'S TEETH.

AT a recent meeting of the Islington Board of Guardians a discussion took place as to the appointment of a surgeon-dentist for the workhouse schools, as recommended by the School Committee. There was considerable opposition, and the matter was referred back to the School Committee for further report. Our contemporary, the *St. James's Gazette*, very justly says: "Whatever the result, there cannot be a doubt that the preservation of their teeth is a matter of no slight importance to pauper children. The rate of mortality among the poorer classes would perhaps be much reduced if more attention were paid to the condition of their teeth when young." On the ground of expenditure alone it would in all probability be found a saving. Wherever it has been tried it has been found to bring about the most beneficial results. In his last report the resident medical officer at the Anerley schools (which was, we believe, the first charitable institution to appoint a dental surgeon) draws especial attention to this subject, as it came under his personal observation.

RICKETS AND SYPHILIS.

COMBY does not agree with Parrot's proposition that rickets only arises as the ultimate manifestation of syphilis. The "geographical" tongue, the scarred buttocks, eroded teeth, and natiform skull are signs of an extinguished syphilis, according to Parrot and others. Hereditary syphilis attested by these marks would cause osteophytes, gelatiniform atrophy, and spongoid tissue, which suggest rickets. Comby contrasts rickets with syphilis. In the former rarefaction of tissue occurs; in the latter, condensation and softening. Scars and dental lesions are common in syphilis, rare in rickets; corneal lesions are generally scrofulous; lingual desquamation is not peculiar to syphilis. If infants who have been impregnated with syphilis are provided in due course with suitable food, they will not become rickety. In the etiology of rachitis, syphilis holds the same position as measles, variola, scarlatina, typhoid fever, and bronchopneumonia.

A MAGISTRATE'S VIEWS OF LUNACY.

THE *Cheltenham Free Press* of June 23rd contains an account of a magisterial inquiry relative to the sanity of a person alleged to be of unsound mind. The case is of interest to the medical profession, inasmuch as the presiding magistrate indirectly expressed an opinion as to the causes of lunacy when demurring to the statement of Mr. Walters, surgeon. Asked whether drink would of itself cause lunacy, Mr. Walters unhesitatingly affirmed that it would. This piece of evidence was apparently too strong and exclusive for the learned justice of the peace, who seems to have had in his mind that phase of mental irregularity which an individual exemplifies when he is said to be "mad drunk." No one would wish to join issue with him as to the legal responsibility of a person so afflicted, or cavil at his question whether "a man when in a state of intoxication did not do

stupid things, and then recover himself after being locked up for forty-eight hours." At the same time we would point out to him that Mr. Walters did no more than speak the opinion of the profession when he averred that drink was a sufficient cause of insanity. In the first place, excessive indulgence in alcohol may induce delirium tremens, a veritable form of mental unsoundness, and one which the law recognises. Then, too, chronic alcoholism not seldom causes sclerosis of the cerebral tissues, with impairment of function as its consequence. And lastly, acute alcoholic delirium may pass to virtual and abiding insanity.

THE TIME OF DEATH.

WHILE Dr. Munk's charming little book upon Euthanasia is still fresh in our memory, it is curious to note *(Revue Scientifique)* that M. Brouardel has been recently lecturing upon the precise moment of death, considered from a medico-legal point of view. It is with a feeling of some surprise that we learn that he wholly rejects as signs of death both cessation of respiration and arrest of cardiac pulsations. The most recent observations upon a decapitated body showed that cardiac movements persisted an hour after the head had been severed, and on these grounds, as well as on account of the temporary arrest in fainting, he holds that the cardiac movements afford no certain criterion for gauging the precise moment of death. That the spinal cord has comparatively little influence upon the heart's action was well shown by experiments upon two dogs; the one was completely decapitated, in the other only the soft parts of the neck were divided, and yet the time that elapsed before cessation of cardiac movements was practically the same under both conditions.

SALMON SUPPLY.

FROM a return contained in the twenty-seventh annual report of the Fishery Commissioners, which has just been published, we learn that the total amount of this most important of our fresh-water fish supplied to the Billingsgate Market showed last year some falling off as compared with the years 1883 and 1885. It reached, however, a figure considerably beyond the average of the past ten years, and the take in England and Wales was larger than any recorded within that period. The most remarkable growth displayed by this return is, however, to be found in the Scandinavian trade. The quantity received from Sweden and Norway has in ten years increased sevenfold. The Scottish consignments, on the other hand, though still affording the most important source of the supply, have shown in recent years a distinct decline.

UNDIGNIFIED BEGGING FOR HOSPITALS.

ONE unpleasing result of the impecuniosity of our hospitals is the tendency in officials to compile undignified statements of the unrivalled merits and claims of their institution and all its officers. A striking instance is before us in the form of an appeal on behalf of a certain West-end hospital. Perhaps this evil is more marked in the case of special hospitals from a consciousness of the necessity and difficulty of showing their *raison d'être*. After a prodigious list of patrons &c. comes the appeal marked with dark underline as special and urgent. One large paragraph is devoted to the laudation of the medical officers of the hospital, as though they were specially made for this institution, and as specially endowed with skill and kindness not to be met with elsewhere. As a consequence we are prepared for the next step: extracts from letters from grateful patients who have been previously under "several doctors without benefit," "have been ten months to other hospitals without being cured," &c. What can readers of such stuff do but inquire who the "kind doctors" are, and go straightway and consult them? Such puffs read more like the advertisements of quack medicines than the dignified appeal of a rightly constituted hospital. We cannot believe that the medical staff of this hospital regards this system with complacency.

HYGIENIC EXHIBITION AT OSTEND.

THIS pleasant Belgian watering-place is shortly to enhance its autumnal attractions by an International Exhibition of Hygiene on a very comprehensive scale. Already four hundred members are announced as prepared to take part in it. The Leopold Park has been chosen as the site of the exhibition buildings, and it will be illuminated with the electric light every evening. The opening ceremony will take place under the auspices of King Leopold II., with whom will also be present Queen Marie Henriette and the Princess Clementine. The Royal family indeed will, from the first week in July, transfer the court to Ostend for the space of three months, and so the bathing season promises this year to be an exceptionally brilliant one.

COMPRESSED AIR IN PLEURISY.

DR. JOSEPH SZOHNER, of Visegrád, gives in a Hungarian journal an account of some cases of pleurisy with effusion, in which the compressed-air treatment appeared to exercise a most salutary effect. The patients were ordered two sittings daily. In one of the cases, where the pleura had been nearly full of fluid, which the patient refused to have taken away, it made an opening for itself, and, in spite of all that could be done, the man seemed to get worse and worse, a large cavity forming in the apex. The compressed-air treatment was then resorted to, the drainage and irrigation of the cavity being of course attended to; and after a couple of months convalescence was completely established.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Emil Grunmach has been granted the title of Professor.

Cracow.—Professor Adamkiewicz has been induced to reconsider his resignation by a very definite promise that his wishes as to the erection of more suitable clinical accommodation shall be responded to without delay.

Erlangen.—Dr. Kiesselbach has been raised to the rank of Extraordinary Professor, and has been given charge of the Otological department.

Marburg.—Dr. Ernest Frerichs has been authorised to assume the rank of Professor.

Munich.—A petition has been got up by the students of this and the two other Bavarian Universities, Würzburg and Erlangen, requesting that arrangements may be made for holding the final examinations in the summer as well as in the winter semester, in order that, as they enter in October, they may be able to become qualified after the requisite nine semesters (i.e., during their tenth), instead of, as at present, having to wait until the beginning of their eleventh semester in order to pass.

St. Petersburg.—Dr. J. Setshenoff, Professor of Physiology in the University (not in the Military Medical School), is about to retire, after thirty years' service.

Tomsk.—Arrangements are being made for providing this the new Siberian University with a complete Medical Faculty, which is expected to be ready to admit students in October.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Valerian Lashkevich, Professor of Clinical Therapeutics in the University of Kharkoff.—Dr. W. Lorenz, formerly superintendent of an important lunatic asylum near St. Petersburg.

THE death is announced of Mr. Henry Jones Domville, C.B., M.D., Inspector-General of Hospitals and Fleets and Honorary Physician to the Queen. The deceased, who was born in 1818, became Assistant Surgeon in the navy in 1839, and, after obtaining the diploma of Member of the Royal College of Surgeons of England in 1844, was promoted successively to be a Staff Surgeon in 1846, Deputy Inspector-General of Hospitals in 1864 (after taking the M.D. degree at St. Andrews in 1862), and Inspector-General in 1875. He retired from the service three years later. Dr. Domville served in the Syrian campaign in 1840, when he was on board the *Revenge* at the siege of St. Jean d'Acre, for which he received the medal with clasp and the Turkish medal; in the war with Russia he was present on board the *Tiger* at the bombardment of Odessa, in 1854; and in the following year he was Senior Staff Surgeon in the Baltic, and again earned the medal. He was a Justice of the Peace for the county of Kent, and was made a C.B. in 1867. He died on the 8th inst., at his residence at Paignton, Devon.

THE Central Sanitary Department of Japan has just published a report on the cholera epidemic of 1886, which was the most violent since 1879. There were in all 155,574 persons attacked, and of these 110,086 died. The gravity of the epidemic is attributed to the impurity of the water.

DR. HUNTER MACKENZIE has been elected a corresponding member of the Société de Médecine Pratique of Paris.

HENLEY REGATTA AND THE CONTAMINATION OF THE LONDON WATER SUPPLY.

IN July, 1886, we published a special report on the pollution of the Thames at the Henley Regatta. The cholera epidemic was still raging in Italy, and we pointed out that Englishmen arriving from India *viâ* Brindisi and the overland route might contract cholera, which might only declare itself when they were living in one of the house boats that to the number of more than a hundred were collected at Henley. We showed that these house boats had closets draining direct into the Thames and generally occupied positions above the intake of the London water supply. Apart from the risk of specific cholera infective material being thus introduced into the drinking water of the great metropolis, this water was also befouled by the domestic refuse of these house boats. The specimens of water we collected at the regatta showed on analysis that they contained more than a grain per gallon of ammonia. We described in terms sufficiently graphic and precise this state of contamination, and a great outcry was raised. The Thames Conservancy, yielding to public pressure, drew up some new bye-laws which would enable them to deal with the grievance. A hitch, however, occurred, not with regard to the clauses dealing with the sanitary improvements necessary, but objections were raised to the methods proposed for numbering and registering the boats. Delay therefore ensued. Nevertheless, Royal assent to the new bye-laws might have been obtained in the month of March preceding last year's regatta. This, however, was not done. The matter remained dormant till, just before the regatta we once more took up the question, and then, with surprising celerity, the Royal assent was secured. What is still more remarkable is the fact that the Royal signature was obtained during Jubilee week. Nevertheless, it was too late to apply the new law in time for the regatta of 1887, and most of the house boats we then visited were still draining into the Thames. On the other hand, the suggestion we had made to employ scavenger boats was carried out in time. Two scavenger boats were brought down by the Thames Conservators, and in the early morning and late in the evening they went round to collect all the domestic refuse. Thus the water was much cleaner last year.

Now, the Thames Conservators have had fully twelve months to apply the new bye-laws and prevent further contamination of this important source of our London drinking-water supply. We were naturally anxious to ascertain how far this had been done with energy and success. In answer to our inquiries, we were informed by the Thames Conservancy that shortly after the bye-laws of 1887 came into force they addressed circulars to the owners of the house boats and launches, drawing their attention to the provisions of these new regulations, and pointing out that a closet communicating with the river would be an infraction of the law. The Conservators are informed that in a very large majority of cases the owners of the vessels in question have done away with the waterclosets on their vessels and substituted earth-closets or some other contrivance, instead of draining into the river. Thus we have before us the somewhat startling fact that the authorities themselves admit that the law has not been fully applied. It is satisfactory to note that the improvement is very great, that the large majority of house boats have ceased to drain into the Thames, but we fail to see why there should be a single exception to the rule that is unanimously recognised as indispensable. On making inquiries, the most extraordinary explanation was forthcoming. The fact that a house boat has a closet on board, that its pipe goes direct into the water, that the water can even be seen by looking down the pipe; the further fact that witnesses can be produced to prove that in consequence of the soiled condition of the pan it was evident the closet had recently been used,—all these facts, we were assured, were not sufficient to enable the Thames Conservancy to take action. It seems as if witnesses were required to the actual act of contamination. Circumstantial evidence, however conclusive, is not considered sufficient. The owner of a house boat might escape by declaring that though he had a closet communicating directly with the river, and no other sort of accommodation on board, still that closet was not used, and therefore he was not guilty of contaminating the water. Even the assertion of inspectors that the pan was foul, and evidently had been used, would, it is thought, perhaps not suffice.

We must frankly confess that we do not attach any other significance to this astounding line of argument than that it is typical of the reluctance with which the Thames Conservancy has proceeded in this matter. We do not believe that under circumstances similar to those mentioned above any magistrate would refuse to convict. But, if it were so, the Thames Conservancy can well afford to lose a case or two. The public sympathy would be entirely on its side, and it would be easy to obtain such modification of the law or of the bye-laws necessary to secure the compulsory abolition of closets draining into the river, whether they were used or not used. The mere fact that such closets might be used, even if only accidentally, by some ignorant person visiting the boat, should be enough. It is evident that unless the door is locked, or the seat nailed down, these closets are used, particularly when, as is often the case, the pans are found in a dirty condition. The Thames Conservators, in answer to our questions, asserted that no efforts had been wanting on their part to enforce the provisions of the new bye-laws, and that their inspectors have strict injunctions to watch for any clear case of the pollution of the river by a discharge from the vessels in question, and on such being detected the Conservators propose to at once proceed against the offenders. Then why do they at the same time acknowledge that it is only in the majority of the cases that the closets draining into the water have been abolished? To obtain testimony as to an actual "discharge" from the house boats into the water would be extremely difficult. Surely the evidence, already given, that closets still exist, and that the pans are soiled, should more than suffice.

In dealing with the inhabitants on the banks of the river we do not believe that the Thames Conservancy have been so punctilious. To their credit, be it said, they have compelled the authorities at Henley to redrain the whole town, and thus brought about improvements, which we may take an early opportunity of describing. The Henley authorities now regularly supply the Thames Conservators with a large quantity of dry ash, which is distributed to the house boats, to be placed in the earth-closets. At midnight the Conservators' scavenging boats visit all the vessels and remove the ash that has been used and all other refuse.

This is taken to shore, where the Henley Corporation carts receive it and take it to a place close to their sewage farm, about a mile and a half from the town. Here it is handed over to the scavenger contractor and converted into manure. Thus a very great improvement has been realised, and, so far as the scavenging is concerned, the Thames Conservancy have earned the gratitude of London water drinkers. It is regrettable that there should still remain a few—we believe only a few—house boats that continue to drain into the river, and we earnestly urge the authorities to take action at once, without waiting to witness an actual discharge of sewage into the Thames.

LUNACY IN NEW SOUTH WALES.

IN accordance with Section 73 of the Lunacy Act of 1878, Dr. Manning, the Inspector-General of the Insane in New South Wales, has just forwarded to the Colonial Secretary his report on the hospitals and other institutions for the insane in that colony for the year 1887. The total number of insane on the register was 2821, 1735 being male and 1086 female patients. The number on December 31st, 1886, was 2717, so that the increase during the year was 104, and was made up of 91 males and 13 females. This increase, large as it is, is very little above the average for the last ten years, which is 99·2. As the population at the end of 1887 was, according to the estimate of the Government statistician, 1,042,919, the proportion of insane to population was 1 in 369. The proportion is higher than in 1886, the increase in the general population having been in 1887 much smaller than usual, whilst the number of the insane increased at about the usual rate. As the idea is still current that the proportion of insane to population in New South Wales is unduly large, and in excess of that in this country, we may remind our readers that whilst the proportion in the colony was, as above stated, 1 in 369, or 2·71 per 1000, the proportion in England on Jan. 1st, 1887, was 1 in 349, or 2·86 per 1000. It is probable that the misapprehension has partly arisen from the fact that there the insane are almost all maintained in public asylums, provided for by votes of the Legislature, while here such institutions are supported by county, city, or district rates, and the insane in the aggregate come but little under public notice. The number of patients received in the colony during 1887 was 532, of whom 481 were admitted for the first time and 51 had been at some former time under care. The number is less by 35 than that admitted during 1885 and 1886, but greater than during any earlier year.

During the year 214 patients (115 males and 99 females) were discharged as recovered, giving a percentage of 40·22 on the admissions and readmissions for the year. This percentage is somewhat less than the average rate for the last ten years, which was 41·25. The total number of patients under care was 3278 (1995 males and 1283 females), and the daily average number resident was 2722 (1670 males and 1052 females), or 83 more than in 1886. The receipts of the department from all sources amounted to £10,295, and the total expenditure to £89,213, the balance of course being made up by a vote of the Legislature.

THE FRENCH SPECIAL COMMISSIONER ON YELLOW FEVER.

DR. PAUL GIBIER, who was deputed by the French Government to investigate the whole question of yellow fever, has just delivered a lecture before the Academy of Sciences in Havana embodying the results at which he has at present arrived. Before leaving Paris, he felt so convinced of the truth of Dr. Freire's views that he got himself inoculated with some of the cultures which that distinguished Brazilian physician had brought. The first insertion—made with a lancet with great care—was followed by no result whatever. A week later some of the attenuated virus was injected subcutaneously, and this produced such violent effects that Dr. Gibier declares nothing in the world would induce him to submit to a repetition of it. Since his arrival in Cuba, he has made post-mortem examinations of a number of persons who have died of yellow fever, some of the examinations taking place only two hours after death, and one of them within fifteen minutes from the moment life became extinct. The examination of the blood taken from the heart in these cases, as well as the inspection of the urine, the bile, the pericardial fluid, the liver, the spleen, and the mesenteric glands, convinced him that none of these organs contain any microbe. He, however, discovered in the black matter always found in the intestines a bacillus presenting many points of resemblance to the so-called comma bacillus of cholera, being sometimes curved, and occurring in some cultures in a spiral form, possessing also the property of liquefying gelatine. This bacillus, when cultivated in peptonised broth, blackened the sides of the tubes; and when a few drops of the culture were injected into the intestine of guinea-pigs it sometimes proved fatal, the intestinal contents then showing a great resemblance to those found in yellow-fever patients. In dogs, the injection of a few drops into the small intestine rapidly produced violent effects — vomitting, diarrhœa, and, the night following, pyrexia. Cultures of this bacillus had a smell resembling that of the black vomit. A moist heat of 60° C. destroyed the bacillus in a few minutes; desiccation also proved fatal to it in less than twenty-four hours. This last observation led Dr. Gibier to suggest that if this bacillus was really the cause of yellow fever the immunity of inland districts might thus be explained, the comparative dryness of the air destroying the virus. It developed extremely well in sea water charged with organic matter; living, too, for a long time side by side with the ordinary microbes of putrefaction, so long at least as the medium did not become acid, for even a very slight degree of acidity destroyed the organism in a few hours. In confirmation of observations made in the laboratory, Dr. Gibier mentions that he has several times had an opportunity of demonstrating the same circumstance in the dead-house, the contents of the intestines, when they have become acid some hours after death, ceasing to show the presence of the bacillus. Since writing on this subject previously Dr. Gibier has had opportunities of examining the bodies of foreign sailors who have died in the civil hospital of Havana, and he has been able to demonstrate the presence of the bacillus in those who had suffered from yellow fever, and its absence in those who had died from other diseases. His opinion is that yellow fever is due to the development of the microbe in the intestine, the affection being therefore essentially a local one. As to treatment, in addition to tonics and stimulants when required, and frictions for the renal complication, he advises that the main treatment should be directed to the intestine. Every morning a good purge should be given—the first day 1 oz. to 1½ oz. of sulphate of soda, the second day 1½ oz. of castor oil, and the third day 15 grains of calomel, the same series being repeated during the rest of the first week. If the medical man is only consulted on the fourth, fifth, or sixth day, the stomach should be washed out previously to the administration of purgatives, the colon being subsequently irrigated with a special tube in order to get away as large a quantity as possible of the toxic matter. A case is mentioned which was apparently hopeless, the patient being semi-comatose, where an enema produced an extremely copious stool followed by rapid improvement and ultimate recovery. In fact, Dr. Gibier would treat yellow fever as an infecting ulcer "by washing and disinfection." He recommends in addition to hydrochloric acid lemonade, which is taken as a drink, three different mixtures, all to be taken together. 1. Perchloride of mercury ¼ to 1 grain, brandy 2 oz., mucilage 2 oz., infusion of coffee 5 oz; the whole to be taken in numerous divided doses during the twenty-four hours. 2. Naphthaline 7½ grains, made up into a paste, from five to ten times this quantity to be taken in the twenty-four hours. 3. Tannic acid 7½ grains, made into a paste, from six to ten of these to be taken in the twenty-four hours. A case is given in detail in which this treatment immediately changed the aspect of an apparently very grave case, the patient making a good recovery.

DERBYSHIRE GENERAL INFIRMARY. — An eye department is about to be opened at this infirmary, and Mr. E. Collier Green has been elected as the first ophthalmic surgeon. Mr. Green was formerly senior house surgeon at Derby, and has lately been a clinical assistant at the Royal London Ophthalmic Hospital, Moorfields.

BRITISH DENTAL ASSOCIATION.

Dental Education.

IN his address at the annual gathering of the Eastern Counties Branch of the British Dental Association held recently, Mr. F. HALL, the President, spoke of the great strides that Dental Surgery had made in the last forty years, and questioned whether even now the system of dental education was what it should be. He asked: "Is the L.D.S. a sufficient diploma? or is it the minimum one, obligatory on all, but not enough for those who in the near future aspire to be in the foremost rank of the dental world?" In taking the latter view, he rather inclined to an "honours degree," in which chemistry, physics, and metallurgy should have a prominent part, rather than taking a medical qualification. The subjects advocated were of great interest and importance to the dental surgeon, but surely not so closely related or of so much practical value as a knowledge of general surgery and medicine. The subject of higher qualification has been much discussed at recent meetings of the branches of the British Dental Association, and we believe that Mr. Hall's address will be welcomed by the majority of dental practitioners, in that he advocates a movement forwards, especially as at two meetings the gentlemen who had attained the honour of becoming presidents expressed themselves as being not only content to rest upon their laurels, but opposed to any further medical qualifications, as being not only undesirable, but absolutely disadvantageous.

Anæsthetics for Dental Operations.

Mr. F. H. WEEKES, F.R.C.S., read a paper on Anæsthesia at the last meeting of the Midland Branch of the British Dental Association, in which he takes a very fair and practical view of the drugs most suited for dental operations. Under the heading N_2O, which is the most important of all the narcotics from a dental point of view, he quotes largely from the papers of Dr. Dudley Buxton, Mr. Victor Horsley, and Dr. Fredk. Hewitt (digests of which have already appeared in our columns). There is one statement made with regard to the effect of nitrous oxide on the pulse which is not in accordance with general experience. He says: "The heart's action is quickened at first, especially in nervous people (this happens with all anæsthetics); but afterwards, as soon as unconsciousness begins, the heart's beats are unaffected by the gas." Dr. Fredk. Hewitt has recorded observations of a large number of cases of gas administration, in which he, without exception, found that there was an acceleration of the pulse, continued up till the time that consciousness returned, when a sudden drop to normal occurred. Next in order of practical utility he places N_2O with a whiff of ether—that is, nitrous oxide passed through ether,—a very small quantity of the latter being absorbed, the mixed narcosis being by one-half to one minute longer than when gas is alone administered. For dental operations this extra half-minute is of the utmost value. "The advantages of chloroform," he says, "are its cheapness, its smallness of bulk, its rapidity of action, and absence of bronchial irritation. Its disadvantages are few, but enormous. It produces an intense nausea, and it often causes death without the slightest warning." The large number of recorded deaths under $CHCl_3$ for dental operations in the last few years should lead to its use only in exceptional circumstances. Ether is far safer than $CHCl_3$; and where long operations are required, which sometimes do occur for dental cases, it is to be preferred to chloroform. Mr. Weekes has found that atropine, given just before ether, diminishes the amount of saliva &c. secreted, and, if so, it would be of the greatest value in dental operations on the lower jaw. The expression of his opinion that anæsthetics should be administered by a medical man called forth a good deal of antagonistic discussion. The plan of a certain number of dentists, of giving gas and then operating themselves, is to be strongly condemned, for, as Mr. Weekes says, it is not to be expected that a dentist will attempt to treat dangers from the anæsthetic at a time when all his faculties are being devoted to the difficult task of extraction. But even where one dentist (we are speaking of those not possessing a medical qualification) gives gas and another operates, should an accident occur—and there are several cases of death on record,—the dentist would find himself in a by no means enviable position, having all the terrors of a coroner's inquest before him. Mr. Weekes finishes his paper with a few remarks on cocaine injection for extractions, and he, in common with most dentists, has found it to have been rather disappointing.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5381 births and 2710 deaths were registered during the week ending July 7th. The annual rate of mortality in these towns, which had been so low as 16·2, 15·5, and 15·9 per 1000 in the preceding three weeks, further declined last week to 15·0—a lower rate than has prevailed in any week of which record exists. During the thirteen weeks of last quarter the death-rate in these towns averaged only 18·1 per 1000, and was 2·7 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 9·1 in Brighton, 9·9 in Nottingham, 11·4 in Leicester, and 11·5 in Birkenhead. The rates in the other towns ranged upwards to 19·0 in Derby, 20·3 in Newcastle-upon-Tyne, 21·0 in Manchester, and 22·2 in Preston. The deaths referred to the principal zymotic diseases, which had been 248 and 304 in the preceding two weeks, declined again last week to 276; they included 94 from diarrhœa, 63 from whooping-cough, 33 from diphtheria, 32 from measles, 25 from scarlet fever, 21 from "fever" (principally enteric), and only 8 from small-pox. No death from any of these zymotic diseases was registered during the week in Plymouth; whereas they caused the greatest mortality in Bolton, Manchester, and Preston. The highest death-rates from diarrhœa occurred in Sunderland, Blackburn, and Liverpool; from whooping-cough in Cardiff and Manchester; from measles in Wolverhampton; from scarlet fever in Newcastle-upon-Tyne, Oldham, and Bolton; and from "fever" in Derby. The 33 deaths from diphtheria included 29 in London. Small-pox caused 7 deaths in Preston, and 1 in Bradford, but not one in any of the twenty-five other large provincial towns or in London. The Metropolitan Asylum Hospitals contained only 3 small-pox patients at the end of the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 897 at the end of last week, against 895 and 925 on the preceding two Saturdays; 81 cases were admitted during the week, against 81 and 98 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 213, 184, and 156 in the preceding three weeks, were 176 last week, and were 34 below the corrected average. The causes of 59, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Brighton, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Wolverhampton, Hull, Oldham, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·0, 18·4, and 18·2 per 1000 in the preceding three weeks, further declined to 16·2 in the week ending July 7th; this rate exceeded, however, by 1·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 9·5 and 11·2 in Greenock and Perth, to 16·8 and 18·9 in Edinburgh and Glasgow. The 410 deaths in the eight towns showed a further decline of 51 from the number in the previous two weeks, and included 10 which were referred to diarrhœa, 7 to diphtheria, 7 to measles, 5 to "fever," 5 to whooping-cough, 3 to scarlet fever, and not one to small-pox; in all, 37 deaths resulted from these principal zymotic diseases, against 46 and 49 in the preceding two weeks. These 37 deaths were equal to an annual rate of 1·5 per 1000, which corresponded with the mean rate from the same diseases in the twenty-eight English towns. The 10 fatal cases of diarrhœa showed a decline of 2 from the number returned in each of the preceding two weeks, and were 12 below the number in the corresponding week of last year. The 7 deaths from diphtheria, of which 3 occurred in Glasgow and 3 in Edinburgh, exceeded the numbers in recent weeks. The fatal cases of measles, on the other hand,

which had been 13 and 12 in the previous two weeks, declined last week to 7, of which 6 were returned in Glasgow. The deaths from "fever," from whooping-cough, and from scarlet fever also showed a decline; of the deaths from "fever," 2 occurred in Glasgow and 2 in Aberdeen, while 3 fatal cases of whooping-cough and 2 of scarlet fever were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 94, 75, and 89 in the preceding three weeks, declined again last week to 77, but exceeded by 1 the number returned in the corresponding week of last year. The causes of 60, or nearly 15 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 20·7 and 24·8 per 1000 in the preceding two weeks, declined to 20·2 in the week ending July 7th. During the thirteen weeks of last quarter the death-rate in the city averaged 24·6 per 1000, the mean rate during the same period being 16·9 in London and 19·0 in Edinburgh. The 137 deaths in Dublin showed a decline of 31 from the number in the previous week; they included 6 which were referred to "fever" (typhus, enteric, or ill-defined), 6 to whooping-cough, 3 to measles, 2 to scarlet fever, and not one either to small-pox, diphtheria, or diarrhœa; in all, 17 deaths resulted from these principal zymotic diseases, against 8 and 13 in the preceding two weeks. The annual death-rate from these diseases was equal to 2·5 per 1000, the rate from the same diseases being 1·9 in London and 1·6 in Edinburgh. The fatal cases of "fever," which had been but 1 and 3 in the preceding two weeks, further rose last week to 6, showing an excess upon any recent weekly number. The fatal cases of whooping-cough and measles also showed an increase. The deaths both of infants and of elderly persons showed a decline from recent weekly numbers. Only 1 inquest case, and no death from violence, was registered; and 37, or more a quarter, of the deaths occurred in public institutions. The causes of 21, or more than 15 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

ON ARTIFICIAL GLYCOSURIA.

To the Editors of THE LANCET.

SIRS,—Your correspondent, Mr. Burton, in discussing the production of glycosuria from the internal administration of salicylates, seems to overlook the fact that the salicyluric acid occurring in the urine in such cases (with possibly other bodies, for Fleischer believed that pyrocatechin was also frequently to be found[1]) reduces both the copper and bismuth tests for glucose. Since his letter appeared I have made a careful examination of the urine of a patient taking large doses of salicylate of soda. When this patient was taking from 20 to 40 grains daily, the urine gave a reaction corresponding to 5 grains to the ounce with picrate of potash, but when the drug was increased to 50 and 80 grains a day the amount of glucose indicated by the same test in the urine rose to 8¼ grains, and the secretion, besides reducing Fehling's solution, threw down a copious black deposit when boiled with Lowe's bismuth test. I now set a sample of it to ferment with yeast alongside of three specimens of normal urine of equal quantity, to each of which had been added 8, 4, and 2 grains of glucose to the ounce respectively. These several specimens were put into little test tubes 6 inches deep, and the tubes were then inverted in little flasks, and kept at a temperature of 70° to 80° F., all four being treated exactly alike in every respect. At the end of about twenty-four hours the following was the result, as measured by the quantity of carbonic acid occupying the upper part of the tube:—

1. Normal urine + 8 gr. glucose to the oz. = $3\frac{5}{10}$ in.
2. Normal urine + 4 gr. glucose to the oz. = 2 in.
3. Normal urine + 2 gr. glucose to the oz. = $\frac{1}{10}$ in.
4. Urine of patient ... ... = $\frac{3}{10}$ to $\frac{4}{10}$ in.

[1] Berlin. Klin. Wochenschrift, Sept. 1875, Nos. 39 and 40.

Next day the patient's urine (which had been kept tightly corked and was quite fresh) was again tried, but only a bubble or two of gas formed. At the same time, to ascertain how far any salicylate compounds present might interfere with fermentation, a specimen was set to ferment, to which 4 gr. of glucose to the ounce had been added. In the latter one inch of gas formed in twenty-four hours, and this increased to nearly two inches during the next equal period of time. It thus appeared that fermentation was retarded to a certain extent, but even after making allowance for this, it was clear that a large deduction required to be made from the indication afforded by a reduction test. When a quantity of the urine was shaken up with ten times its volume of ether, the latter yielded on evaporation a small quantity of a crystalline deposit, acid in reaction, which reduced Fehling's test slightly. When the urine which had been thus treated was afterwards acidulated with hydrochloric acid and again extracted with the same quantity of ether, a large deposit, partly crystalline and partly of a yellow, syrupy nature, was obtained, which gave in water a yellow solution with an acid reaction, and this solution not only threw down the red suboxide from the copper test, but also gave a perfectly black precipitate when boiled with the bismuth solution. A second, and even a third, charge of ether still extracted a considerable quantity of this acid mixture from the original sample of urine. It appeared to me that the urine hardly contained more than two grains of glucose to the ounce, and this may perhaps be accounted for by an action on the blood-corpuscles without any reference to a diabetic centre.

I am, Sirs, yours faithfully,

July, 1888. ROBERT KIRK, M.D.

THE DANGERS ATTENDING THE ACTUAL ANOMALOUS CONSTITUTION OF THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—As I was unable to attend the late meeting of the Fellows of the College of Surgeons, I shall be obliged if you will allow me to recall attention in your columns to a striking illustration of the dangers to which the profession and the public are exposed from the practically irresponsible oligarchy which rules the College.

In 1876, the Council of the College, having obtained—of course without consulting either Fellows or Members—a Charter, which empowered them to admit "persons" to the examination in midwifery, apart from any other test in medicine and surgery, and, passing which, such "persons" would be entitled to be placed on the Register, endeavoured to carry this scheme into effect. To avoid a tedious history of what took place, it will be sufficient to quote from a leading article in THE LANCET of April 22nd, 1876:—

"The Council of the College of Surgeons have been saved from the effects of the weak, wavering policy of their leaders by the prompt and praiseworthy conduct of Dr. Barnes, one of the examiners in obstetrics. When it was announced that the College was willing to admit 'women' to examination in midwifery, Dr. Barnes at once declined to examine 'persons' who were not properly and adequately educated, and he accordingly tendered his resignation. Later on, Dr. Farre and Dr. Priestley were induced to follow Dr. Barnes' lead." And, in THE LANCET for March 18th, the Editor had said: "They (the Council) must not be surprised if those who represent obstetric medicine decline to assist in the manufacture of fragmentary diplomas. The Council of the Obstetrical Society and a general meeting of the Metropolitan Branch of the British Medical Association have already expressed in unmistakable terms a judgment which will be universally endorsed by the profession."

Thus it is clear that, had not the medical press represented the body of the profession far more truly than did the Council of the College, a most flagrant wrong might have been inflicted. The danger still exists. The Council is applying for a new charter *proprio motu*, not solicitous about the opinion of those in whose interest it is supposed to act.—I am, Sirs, your faithfully,

ROBERT BARNES, M.D., F.R.C.S

Harley-street, W., July 7th, 1888.

"WHAT IS A HOSPITAL?"

To the Editors of THE LANCET.

SIRS,—I wish through your columns to invite an expression of opinion concerning the action of the committee of the Metropolitan Hospital (late the Metropolitan *Free* Hospital), in the Kingsland-road, in converting their institution into a Provident Dispensary. This hospital, in common with nearly all others, was established to relieve the medical wants of the poor, and in the earlier part of its existence great stress was laid upon the word "Free" and the principle therein involved. The governing body said: "We want no governor's letter nor any recommendation. If the patient is poor and ill we will try to relieve him." But now what a change! Under the present arrangement the poor man presents himself and receives advice and medicine once, but on his coming again is met with the statement: We do not want you or your class; you must go to the workhouse! We want people who can pay and will subscribe to our provident fund. Now the question I would ask is, Was such a course as this ever contemplated by the generous and charitable people who supplied the money to start and maintain the institution? Of course, the committee would attempt to excuse their departure from the original design by a representation that a great deal of their money was made by very fortunate sales of their former sites. But does this alter the position? I should say not. From whom did the money come in the first place, for what purpose was it given, and did not the charitable aid lead to the fortunate investment? The same argument of misapplication of charitable help affects with even greater force the Hospital Sunday Fund contribution, for here the distributors of the fund are called upon to see that the money is applied in support of the purpose for which the hospital was intended. Surely it should not go to form a capital upon which the committee of the Metropolitan Hospital may trade. Again, was it ever contemplated by the founders of this hospital that the committee would enter into competition with the hard-worked medical practitioner, even to the extent of sending out circulars touting for business and generally underselling him? I would ask, Is this a right course to pursue, having the advantages and appliances of a large hospital at their command, and with money obtained for a distinctly different purpose?

Now to inquire as to the reason of all this change and departure from the old and honoured lines of professional etiquette and good feeling. Is it to help the poor? No. The poor man, unless he will join their provident fund, is told to go to the workhouse—to prevent which, in my humble opinion, is one of the chief functions of a hospital. No, the reason is altogether different. It was stated by the honorary secretary, at a meeting at which I was present, that it is to make money to cover a yearly deficit. Can this be called a legitimate object?

I feel that I have but inadequately stated the case; but I think I have shown that the committee are ignoring the proper purpose of the hospital, and acting very unfairly to the medical men in the neighbourhood.

I am, Sirs, yours obediently,

Southgate-road, N., July, 1888. A. H. SANDILAND.

DISADVANTAGES OF OPTIONAL NOTIFICATION.

To the Editors of THE LANCET.

SIRS,—There is one point bearing on the above which is worthy of consideration in the interest of the profession. In places where it is optional some of the doctors will notify and some will not. The public, who very much object to it, soon find out who do so, and in a doubtful case will go to the one who does not, and the man who does what he thinks his duty to the community will thus lose many patients. Even when it is made compulsory the same will occur in a less degree, as it is generally possible to "keep it quiet." The reason the public object is not only the trouble, but the expense entailed by papering and whitewashing &c., which should not, I think, be thrown on the individual. I am, Sirs, yours truly,

South Tottenham, June, 1888. G. B. BEALE.

THE FELLOWS' DINNER.

To the Editors of THE LANCET.

SIRS,—I think the annual dinner of the Fellows of the College of Surgeons on election day should now be abandoned. Of the 180 Fellows who voted on Thursday not above a third dined; and as next year voting by paper will probably be legalised, the number of country Fellows will no doubt be diminished. I say nothing against the management of the dinner, though I should prefer shorter and more audible speeches and no music, with a better dinner!

I am, Sirs, yours obediently,

July 9th, 1888. F.R.C.S.

THE CHAIR OF SURGERY IN THE OWENS COLLEGE.

To the Editors of THE LANCET.

SIRS,—Would you kindly insert the enclosed in your next issue? I am, Sirs, yours faithfully,

Bank House, Hatherlow, near Stockport, July 7th, 1888. T. A. GOODFELLOW.

A very largely attended meeting of the Manchester medical students was held at the Infirmary on Thursday, the 5th inst., to consider what action should be taken to acquaint the Council of the Owens College with the view taken by them of the recent appointment to the chair of Surgery in the College. The following memorial was unanimously adopted, and it was further resolved to forward copies to the members of the Council.

"*To the Council of the Owens College.*

"GENTLEMEN,—We, the students of the Manchester School of Medicine, desire unanimously to express to you, the Council of the Owens College, our regret and disappointment that you have deemed it necessary to withdraw the teaching of surgery in the Owens College Medical School from the hands in which it has been placed for several years past.

"To the public medical careers of our teachers we must not here advert, for you have already reviewed the evidence relating thereto; but we respectfully represent to the Council our conviction that the present teachers have, in their past professional relations with us, acquitted themselves with much credit and honour, and that by their expulsion we are deprived of the extensive practical experience gained by many years of surgical practice in the Manchester Royal Infirmary, which, with the exception of the London Hospital in the East-end, holds the first position in Great Britain in regard to the material of its surgical practice."

SMALL-POX AT MILAN.

(From our own Correspondent.)

THE weather has been very showery, sometimes condensing into waterspouts, and the evenings have been cold beyond all precedent for more than a month. Coincidently, small-pox has increased, and risen to proportions quite alarming. For some years, it is now officially and somewhat reluctantly admitted, the malady has never been altogether absent from Milan, and within the last few weeks the cases have so multiplied that, in round numbers, there are now 1000 small-pox patients known to the officers of health. The Rotonda, the establishment to which such cases are transported for isolation and treatment, has its two hundred beds constantly filled, but these form a very minor proportion of the sick from small-pox, the vast majority being attended to in their own dwellings. All, indeed, who can afford it prefer their homes, however humble, to the Rotonda, and not unnaturally shrink from going themselves or allowing their near and dear ones to go to a lazaretto, overcrowded, fetid, and unsightly beyond description. Even those public-spirited journals which have been preaching the duty, incumbent on every citizen, of personal cleanliness, of scrupulous observance of sanitary law, above all of vaccination or (if need be) revaccination, refrain from advising parents or householders to take their small-pox

stricken belongings to the Rotonda, but rather keep urging the municipality to prosecute with redoubled vigour the building of the new lazaretto, for which so large a call has been made on the civic purse, and which has so strangely lingered these two years on the road to completion. The Rotonda, indeed, so far from being a place to recommend, is eminently one to be warned against—standing as it does over the graveyard of an ancient church, where, according to a local observer, the corpses have, by special conditions of the soil in operation for centuries, contributed to form a substratum of adipocere, the attempted removal of which had lately to be abandoned owing to the poisonous effects of the disturbed *humus* on the labourers employed. Besides its fatal defects of site and structure, the Rotonda does not favour by its internal economy the requirements of rational and humane treatment. Its very existence, so far from being a safeguard, is a veritable danger to its densely populated neighbourhood. Pending the construction of the new lazaretto outside the city walls, but not inconveniently remote from these, the sanitary authorities are applying, wherever they can do so successfully, the most accredited of prophylactics in small-pox—vaccination; and earnestly appeal to all members of the civic brotherhood, from the clergy downwards, to assist in reducing to zero the number of the non-vaccinated. Milan is the wealthiest and the most enterprising of Italian cities; she attracts and entertains a larger number of temporary visitors within the twenty-four hours than any of her showier sisters; and it is scarcely in keeping with her character—certainly it is not conducive to her interests—that she should for years have been harbouring—nay, inviting—a visitor the most unlovely, the most unwelcome, and, be it added, the most easily held aloof of all by which our modern civilisation is beset.

As I write I am informed of the increased activity of the prophylactic measures set on foot by the Municipality. The owners or managers of large industrial establishments are having their operatives vaccinated *en masse*—the great dye-works outside the Porta Magenta, for instance, having just called in Drs. Grancini, Noli, and Mascetti of the Vaccination Commission, who vaccinated 700 of the hands on the spot. Working-men's clubs are joining the prophylactic movement, and, in concert with the Municipality, are having themselves, their members, their families, and all whom invitations can reach, vaccinated in special halls set apart for the purpose. Everything short of systematic vaccination, under imperial control and imperial penalties, is being done; and the medical and sanitary interests are countenancing the work only as a temporary substitute for what legislation is expected to accomplish.

Other parts of Italy are at present ravaged with small-pox. Along the Neapolitan Riviera the malady is never quite quite absent, but Salerno—the *civitas Hippocratica!*—is at this moment scourged by it in its most malignant form, the so-called *vaiuolo arabo* (Arabian small-pox). In an outlying village with 700 inhabitants the patients, since May 10th, have numbered 270, the deaths 143. The average of cases per diem is five. I am told that in the whole country side there is not one fairly equipped pharmacy, and that disinfectants, in a region teeming with lime and sulphur, are unknown. Meanwhile, so virulent is this *vaiuolo arabo*, that the same informant assures me that, within an hour after death from the disease, the corpses turn quite black, looking as if they had been charred (*carbonizzati*), and a little after become totally unrecognisable! With such deadly distempers ever threatening, when not actually present, what is the use of Italy vaunting her "sun-traps," her genial winter resorts, and trying to lure the northern stranger to pitch his tent and spend his money amid such surroundings?

Milan, July 9th.

LIVERPOOL.

(From our own Correspondent.)

THE MORTALITY OF LIVERPOOL.

LIVERPOOL has often been described as the most unhealthy town in England. This unenviable notoriety has owed its origin to ignorance of several local circumstances which would go far to show how very incorrect such a description was and is. For if the area of the city included all the suburbs, as is the case with the metropolitan and other areas, the result would have been a very much lower death-rate. Again, if there were at the mouth of the river Mersey some place analogous to Greenock on the Clyde or Gravesend on the Thames, many who arrive in Liverpool dying or dead would be landed there, and the deaths would swell the mortality returns of that locality. When the late Dr. Parkes and Dr. Sanderson inquired into the mortality of Liverpool in 1871, they found that in a selected district the mortality was only 15 per 1000, while in another it was 45. Lately the mortality has been as low as 15 per 1000, a proof of the care with which the health authorities have performed their duties.

SINGULAR DISCOVERY OF A DEAD BODY.

On the 4th inst. the city coroner resumed the inquest opened a fortnight previously on the body of a married woman which had been found in a very decomposed state in a house in Kirkdale. The deceased was the wife of a sailor, and there were allegations that he had ill-used her. A post-mortem examination was made by Dr. James A. Hendry, and later on a second inspection was made by Mr. F. W. Lowndes, surgeon to the police, in Dr. Hendry's presence. No evidence was found of any serious injury, such as fractures or dislocation, and the decomposition was so advanced that no opinion could be expressed as to any marks of bruises. The lungs were collapsed, the heart somewhat fatty, and the liver enlarged. The stomach was removed for chemical examination by Mr. Edward Davies, who failed to detect any evidence of poison. The other organs were examined, but threw no light upon the mystery. The jury returned an open verdict. The death had most probably occurred six or seven weeks before the body was discovered, and, as the adjoining houses on each side were occupied, this was very remarkable.

DRUNK OR DYING: ANOTHER MYSTERIOUS CASE.

An inquest was held on the 4th inst. by the city coroner on the body of a man who was found in the street in a state of helpless intoxication by a constable. Deceased was about fifty years of age, and from the evidence of a witness it appeared that the deceased was taken to his house (which was a lodging-house) by two men, who wanted him to let the deceased remain, but he would not. A few minutes later he saw the deceased lying on the footway opposite his house, and the police were called. The deceased was removed to the Bridewell, which was near, and there was no appearance of any injury about him. He was visited several times during the night, and as he vomited after drinking some water medical assistance was obtained, and he was removed to the workhouse hospital, where he died the next day. On post-mortem examination by Dr. O'Connor, it was found that death resulted from a serious fracture of the vault of the skull, which was more likely to have been caused by a blow from some heavy instrument than a fall. An open verdict was returned.

THE LIVERPOOL HOSPITALS AND THE HOSPITAL SUNDAY AND SATURDAY DISTRIBUTION.

The following sums were awarded to the Liverpool medical charities as the proceeds of Hospital Sunday and Saturday this year. The total amount distributed was £9252, an increase of £500 over the amount distributed last year:—Royal Infirmary, £2312 10*s.*; Royal Southern Hospital, £1387 10*s.*; Northern Hospital, £1202 10*s.*; Dispensaries, £647 10*s.*; District Nursing Society, £647 10*s.*; Ladies' Charity, £370; Infirmary for Children, £555; Eye and Ear Infirmary, £462 10*s.*; Hahnemann Hospital, £185; Cancer Hospital, £92 10*s.*; Consumption Hospital, 277 10*s.*; Stanley Hospital, £462 10*s.*; Dental Hospital, £23 2*s.* 6*d.*; St. George's Hospital for Skin Diseases, £23 2*s.* 6*d.*; St. Paul's Hospital for Skin Diseases, £138 15*s.*; Woolton Convalescent Hospital, £185; Hospital for Women, £185; Hospital for Incurables, £92 10*s.*

SHOCKING END TO A "WAKE."

In spite of all efforts on the part of the late and present Roman Catholic bishops of Liverpool and their clergy, the revolting practices called holding "wakes," but which are really drunken revels by the side of the corpse, still continue in Liverpool, notwithstanding occasional tragical results. One of these occurred recently, and was the subject of an inquiry before the magistrate and coroner. The deceased was the widow of a shoemaker who died on the 3rd inst., and on whose body a "wake" was held the following night. A son of the deceased man quarrelled

with his mother for being under the influence of drink, and gave her a push which caused her to fall, when she immediately expired. At the inquest Mr. Permewan, resident surgeon at the Northern Hospital, deposed that the only mark of violence was a slight bruise at the back of the head; the internal organs were congested, the heart fatty and otherwise diseased; death was due to failure of the heart's action. The jury returned a verdict of manslaughter against the son, who was committed for trial.

LIBERAL BEQUESTS TO LOCAL HOSPITALS.

By the will of the late Mrs. French the following legacies have been left to local hospitals:—Royal Infirmary, £1000; Northern Hospital, Royal Southern Hospital, Hospital for Cancer and Skin Diseases, £500 each. The deceased also left £1000 to the Margate Sea-bathing Infirmary.

FATAL RIFLE ACCIDENT.

Another terrible fatality arising from the incautious use of firearms has occurred in this city. A member of the 18th Lancashire Rifle Volunteers kept his rifle behind the parlour door of the house in which he lived. On Sunday last a younger brother, aged ten, went to his sister, saying, "I think I have shot Alfred"—a third brother, aged eight. His sister found him bleeding from a wound in the cheek. He was at once seen by Dr. Millington, the ambulance surgeon from the Northern Hospital, who found life extinct. The boys would appear to have been playing with the rifle.

Liverpool, July 9th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

OUTBREAK OF SCARLET FEVER AT NEWCASTLE.

SINCE I last wrote a sudden and extensive outbreak of scarlatina has taken place in Newcastle. It is mostly confined to the Jesmond district. So far I have heard of between fifty and sixty cases. A large number of the cases have been supplied with milk from the same dairy. This dairy has been under observation, and, I believe, the supply has been stopped pending the result of a complete inquiry. I have heard that the dairy was found free from any disease in the workers, but that there had been some cases of sore throat previously in some of the dairy people. Whether this will account for the outbreak, or whether the cows had access to some impure water as drink, it is at present impossible to say definitely. It is fortunate that, so far, the character of the epidemic is non-malignant.

THE EPIDEMIC OF PNEUMONIA AT MIDDLESBROUGH.

The epidemic of pneumonia is disappearing rapidly. There is a considerable difference of opinion as to its contagious character, and on this point we must rest content until we have some authoritative statement from Dr. Ballard, the Local Government inspector, who is engaged in making an exhaustive inquiry into the matter. One thing is certain from the figures which I now send you, that although there is an abnormal amount of pneumonia, so to speak, this year, it is not a new thing in Middlesbrough to have a large fatality in spring from this cause; for instance, as to the deaths from pneumonia, they have been for the last two years (1887-88) as follows: Jan. 9th, 16; Feb. 10th, 31; March 19th, 58; April 23rd, 53; May 25th, 73; and June 20th, 65. Even allowing for the nature of employment of a large proportion of the working classes and their liability to vicissitudes of weather and temperature, these figures are very significant, and almost go to show an endemic proclivity to the disease at Middlesbrough. I shall anxiously look for Dr. Ballard's report on this and the moot point of contagion.

THE NEW USE FOR SLAG.

Your annotation on the new use for slag as a deodoriser and disinfectant, as invented by Mr. M'Arthur of Dundee, has been read with much interest in the north. Should the scheme prove practicable, it would be of especial interest to North Yorkshire, Cleveland, and Durham, where huge mountains of slag are accumulated only to become eyesores to the iron districts and sources of cost to the owners, who have to pay for its removal.

HOSPITAL SUNDAY AT WEST HARTLEPOOL.

In accordance with annual custom, the various public bodies and friendly societies have held their Hospital Sunday procession, the mayor and corporation, for the first time, heading the procession. The day being finer than usual, the proceedings passed off well, and caused much interest in the town, and doubtless will benefit the hospital funds considerably. It is stated that it was necessary to hold an overflow meeting in the Armoury grounds.—I hear that the contract for the extension of the Hartlepool Hospital has been signed, and that the work will be soon commenced.

LEEDS INFIRMARY.

Colonel J. T. North has given £5000 for the enlargement of the Leeds Infirmary. Colonel North, it may be stated, is a native of Leeds, and is particularly pleased with the way in which the working men have supported the extension, the total cost of which is estimated at about £20,000.

Newcastle-on-Tyne, July 9th.

PARIS.

(From our own Correspondent.)

SACCHARIN.

SOON after the communication made by Dr. Worms at the Academy of Medicine on the subject of saccharin, which was reported in THE LANCET of May 5th, 1888, the Prefect of Police requested the Council of Hygiene to give its opinion as to whether the use of this substance in alimentation would be productive of danger to the public health, as the analyst at the Municipal Laboratory of Paris had discovered the presence of saccharin in certain alimentary products, and even in a sample of champagne the sugar was found to be replaced by it. A Commission was charged to investigate the question, and the following are the conclusions arrived at, as communicated to the Academy of Medicine at its meeting of last week, by Dr. Dujardin-Beaumetz, the reporter: "In presence of digestive troubles which saccharin may produce, and basing myself on the fact that saccharin is not an aliment, as it is entirely eliminated from the economy without undergoing any modification, the Commission is unanimous in considering saccharin as a medicament and not an aliment. Moreover, convinced that saccharin would serve only to augment the adulterations, already so numerous, of alimentary substances, the Commission is of opinion that the employment of saccharin in alimentation should be prohibited as being dangerous for the public health." Notwithstanding the inconveniences attaching to saccharin, Dr. Dujardin-Beaumetz maintains that, from a therapeutic point of view, this substance renders great service to the small number of diabetic subjects who cannot do without something in the place of sugar, and it is from this point of view that the diet of diabetics is considerably ameliorated by the introduction of saccharin in the special alimentation of this class of patients. Dr. Worms, in responding to the above remarks, stated that, in support of what he had asserted in his communication already referred to, he had since observed that a certain number of diabetics who had used this product were affected with troubles in the alimentary canal. He, moreover, stated that on a recent visit to London he had a conversation with Dr. Pavy, who declared that the diabetics who had tried saccharin were almost all obliged to abandon this medicament because it produced in them troubles of the stomach, and caused loss of appetite after a few days. Commenting on the above conclusions of the Commission in the *Journal d'Hygiène*, Dr. de Pietra Santa pertinently asks: "How can a substance be declared dangerous to health which is eliminated in its natural state, which does not undergo any modification in the economy, and which is not toxic? How can one base himself on a judgment, which results in a prohibition, on four facts cited by Dr. Worms—facts which are in opposition to the serious clinical observations of Stutzer, Abelos, Pollatschek, Mercier, Adducco, Mosso, and so many others?" Dr. de Pietra Santa then makes the following citation from the *Bulletin Municipal Officiel*: From numerous experiments performed on the physiological and toxic action of saccharin (Salkowski, Adducco, Mosso, Worms,

Dujardin-Beaumetz, Mercier, and others) it results that it possesses incontestable antifermentative and antiseptic properties. In regard to its toxic properties, experiments performed on animals have shown that as much as six grammes per day of this substance can be administered without inconvenience. On the other hand, it appears certain that there are persons in whom the use of saccharin may be continued in small doses for a long time; there are others, on the contrary, in nearly equal number, who would experience serious inconvenience.

PHTHISIS AND INSANITY.

At a recent meeting of the Société Française d'Hygiène, Dr. Moreau de Tours read a communication that he had already made to the Congrès des Sociétés Savantes on the relations of pulmonary phthisis to mental alienation or insanity, from an etiological point of view, and he arrived at the conclusion that "phthisis in parents may, in virtue of the law of heredity transformed, disappear in their children, and be replaced by a mental or nervous affection."

M. CHEVREUL.

At the last meeting of the Academy of Sciences, the President, M. Janssen, informed his colleagues of the infirm state of health of M. Chevreul, the illustrious *savant* and centenarian. He is becoming gradually weaker, and is often obliged to lay up. He is still able to walk, but is obliged to make great efforts to get upstairs. He is, therefore, not so regular in his attendance at the Academy.

ERRATUM.—In the letter published last week the sentence commencing on the fourth line should read thus: "The cause of alcoholism resides as well in the quality of alcohol consumed as in the *quantity*."

Paris, July 10th, 1888.

EGYPT.

(From our own Correspondent.)

TYPHUS FEVER NEAR DAMIETTA.

AT the end of March of this year a smouldering fever seems to have commenced in three hamlets, about three and a half miles to the north of Damietta. Owing to the death of the village barber and absence of satisfactory statistics, the disease was not reported until May, when the chief doctor notified the presence of a continued fever. On June 2nd Mr. Hooker was sent to the spot as sanitary inspector, together with a young native doctor, who had had a previous experience of epidemic fevers. They found a population of 1200 in the three hamlets, all miserably poor, and living on dried bread and preserved fish. During June the Nile is at its lowest; it is, moreover, exceptionally low this year, and the people were dependent for drinking supply upon wells dug in the sand, containing very brackish water. Nine patients were found being treated in a tent, but when a house-to-house visitation was made thirty other cases were discovered, and sixteen further admissions took place between June 3rd and June 20th. Of this total of fifty-five cases, fifty recovered and five died. The latter died about eight days after admission—i.e., at the end of the second week of the fever. They emitted a characteristic typhus odour, and died prostrate in the "typhoid state." No necropsy was performed, because this was a threat reserved for any cases dying in private houses, the friends being thus induced to notify the existence of new patients. The fifty surviving cases were mostly admitted about the fourth day of the disease, and in four days more they became seriously ill, with a temperature of 104° or 105°, dry and thickly coated brown tongue, foul cracked lips, sordes on teeth, congested conjunctivæ without jaundice, constipation, typhus odour, general flush of face, and an eruption consisting of very small plum-coloured petechiæ, not bigger than a large pin's head, and best seen on the anterior folds of the axillæ and on the pubes. About a week after admission the patients seemed almost hopelessly prostrate, and then gradually recovered without a bad symptom and without relapse. Two men suffered from parotid buboes. The patients all came from huts destitute of windows and other ventilation, and the huts themselves were crammed with rubbish, corn, and bedding, while the family bread was often baked in close proximity to the sick. In one cabin five people out of eight were attacked; and in another, containing six persons, five were reported to have died during May, the only survivor being the head of the family. The new patients were at once removed from their dwellings, washed in carbolic water, dressed in hospital clothing, their own rags being burnt, and were placed in huts specially constructed on the spot. These ensured perfect ventilation and gave each man 550 cubic feet. They were built of a framework of wood, with hanging mats, and plentiful open spaces; the floor was of clover hay, and the beds of rice straw. The treatment consisted of milk diet, strong soup, unstinted brandy, and later in the case bread and meat. Improved aeration at once checked the typhus odour, brightened up the patients, and stopped the epidemic. As the financial question is always a very important one in this country, it may be worth mentioning that the energetic measures here taken on y cost the Government £52. This included £30 for hospital huts, besides patients' diet and thorough cleansing and scavenging of the town of Damietta. As on previous occasions, the epidemic showed no tendency to spread to the neighbourhood, and, unlike 1884 and 1886, it was not accompanied by relapsing fever.

AN EPIDEMIC OF MEASLES.

In comparison with England, measles is a rare endemic disease here, but there has been a smart outbreak of it in the native districts of Cairo during the last two months. The deaths have risen from seven to nineteen during the week, without counting cases returned as bronchitis, diarrhœa, or dysentery. Only isolated cases have been seen among the Europeans, and there have been none among more than 100 English children.

HOW SMALL-POX MAY BE SPREAD.

In April an Englishman walked into my consulting room and asked for a diagnosis of the rash from which he had lately been suffering. I found him covered all over with well-marked desquamation and pitting from modified small-pox. He apparently caught the disease in Delhi, and sailed from India in a vessel with no doctor on board, the day before the eruption first appeared. He consulted a medical book upon the voyage, and came to the conclusion it was not variola, because he had no backache or vomiting. Feeling perfectly well, he declined to go into a hospital, but agreed to sail up the Nile for three weeks in quarantine, his crew and servants being successfully protected by revaccination. I was interested in tracing the fate of the original vessel, and learned that she landed two cases of small-pox at Antwerp, where she was fumigated and then despatched to Cardiff, where three other cases broke out.

CAIRO NURSING FUND.

A nursing sister from St. Thomas's Hospital and a second from St. Bartholomew's have just arrived to try to infuse greater cleanliness, decency, and order into Kasr-el-Aini Hospital. They are controlled by a local committee, and their principal duty, besides learning colloquial Arabic, will be to direct the energies of three native midwives and fifteen attendants, who are responsible for ninety women and children distributed over six well-ventilated wards. They will not be required or allowed to nurse in the male wards.

JUBILEE SUBSCRIPTIONS.

The English colony in Alexandria has opened a "Victoria Home" for respectable women of all kinds in search of employment, and attached to it are two English nurses, who are already busily engaged with private cases in Alexandria and Cairo. The colony in Cairo is devoting its jubilee fund to the erection of six isolated rooms in connection with the German "Victoria Hospital," nursed by deaconesses from Kaiserwurth. The rooms are specially intended for infectious disease and for the temporary detention of lunatics.

MILITARY FEMALE HOSPITAL.

This has just been removed from the centre of the town to a much better building at the citadel, and all pains are being taken to make it attractive to the soldiers' wives and children of the army of occupation.

Cairo, July 2nd, 1888.

MEDICAL MAGISTRATE. — Mr. Charles Brook, M.R.C.S., surgeon of the Lincoln County Hospital, has been placed upon the Commission of the Peace for the Borough of Lincoln.

ROYAL COLLEGE OF SURGEONS.

ELECTION OF PRESIDENT.

MR. CADGE, Mr. BRYANT, and Mr. PICK were introduced by the President as the new members of the Council, and, after the usual declaration, took their seats.

After the confirmation of the minutes of the ordinary meeting of the Council on the 14th ult., a letter was read from Mr. Wilde announcing that he had received a letter from Mr. Knyvett of the Home Office, informing him that Her Majesty had given the Royal consent to the Supplemental Charter.

The Report, dated the 27th of June, 1888, of the committee on the mode of election to the Court of Examiners was read, and the principle of electing the members of the Court of Examiners by a majority of the Council was agreed to.

The Tenth Report of the Committee on the Extension of the College Premises was read, approved, and adopted, and the Council authorised the pulling down of 38, Lincoln's-inn-fields, the proposed site of the Conservators' House, and of the back premises of No. 43, Lincoln's-inn-fields, the proposed site of the smaller museum.

The President reported that he and Mr. Bryant for the Royal College of Surgeons, and Sir A. Clark and Sir A. Pitman for the Royal College of Physicians, had given evidence before the University of London Royal Commission in favour of the grant by the combined Colleges of the degree of Doctor.

Mr. Heath was elected a member of the Court of Examiners in Dental Surgery in place of Mr. Wood. The vacancy caused by the resignation of Mr. J. S. Turner will be filled up in October, after a report by the Nomination Committee. Mr. Hutchinson was elected a member of the Committee of Management in the place of Sir Joseph Lister.

The following Professors and Lecturers were appointed for the ensuing year:—Professors of Surgery and Pathology: Messrs. Berkeley Hill and Frederick Howard Marsh. Professors of Comparative Anatomy and Physiology, &c.: Messrs. Arthur Edward James Barker, Mark Purcell Mayo Collier, Charles Barrett Lockwood, Charles Stewart, and John Bland Sutton. Lecturer on Anatomy and Physiology (Arris and Gale): Mr. William Hunter. Erasmus Wilson Lecturer: Mr. Joseph Priestley Smith.

The Council then proceeded to the election of President, and Mr. W. S. Savory was elected for the fourth time. Messrs. Hulke and Heath were elected as Vice-Presidents.

The next meeting of the Council will be held on Thursday, August 2nd.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major Robert William Troup, M.B., to be Brigade Surgeon (ranking as Lieutenant-Colonel), vice Jas. Paxton, M.D., retired (dated June 27th, 1888).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon-Geo. Danford Phillips Thoms, 18th Middlesex Rifle Volunteer Corps, to be Surgeon-Major, ranking as Major (dated July 11th, 1888); Acting Surgeon Henry Wright, 1st Volunteer Battalion, the Lincolnshire Regiment, to be Surgeon, ranking as Captain (dated July 11th, 1888).

BENGAL MEDICAL ESTABLISHMENT.—To be Brigade Surgeons: Surgeon-Major Edward Ambrose Fitzgerald (dated December 9th, 1887); Surgeon-Major Peter Cullen, M.D. (dated April 18th, 1888); and Surgeon-Major William Moir (dated April 26th, 1888).

ADMIRALTY.—The following appointments have been made:—Surgeon Johnston H. Acheson, M.B., to the *Duke of Wellington*; Surgeon John M'Elwee, M.D., to the *Asia*; Surgeon Paul W. Fraser, to the *Pembroke*; Surgeon D'Arcy Harvey, M.B., to the *Impregnable*; Surgeon Frederick W. Collingwood, to the *Indus*; Surgeon Reginald T. A. Levinge, to the *Duncan*; Surgeon John C. Ferguson, M.B., to the *Vernon*; and Surgeon Edward P. Mourilyn, M.B., to the *Excellent* (all dated July 6th, 1888); Mr. Alexander B. Payne, to be Surgeon and Agent at Deal, and Mr. John G. Marshall, to be Surgeon and Agent at St. Margaret's Bay and Cornhill.

Obituary.

JOHN MILNER FOTHERGILL, M.D.ED., M.R.C.P.L.

DR. MILNER FOTHERGILL, whose death, at the age of forty-seven, we regretted to announce last week, came of a medical family, and was by birth a Westmoreland man. He received the principal part of his medical education at the University of Edinburgh, taking the degree of M.D. there in 1865; and he subsequently prosecuted his studies in Vienna and Berlin. Dr. Fothergill's earlier years of medical practice were spent in the northern counties, at first in his native place and afterwards in Leeds. There can be no doubt that his future career was largely guided by the fact that his essay on "Digitalis, its Mode of Action and its Use," written while he was senior resident medical officer to the Leeds Dispensary, won the Hastings Prize of the British Medical Association. During the last sixteen years Dr. Fothergill had practised in London; and although he was not successful in attaching himself to a hospital connected with a medical school, he was soon appointed physician to the City of London Hospital for Diseases of the Chest, and assistant physician to the West London Hospital. In 1872 he took the membership of the Royal College of Physicians. For his essay on the "Antagonism of Therapeutic Agents and what it Teaches," founded upon many original investigations of his own, Dr. Fothergill received the Fothergillian Prize of the Medical Society of London in 1878. From this time his pen was always kept active, and the number of his published works and papers during the last fifteen years of his life is a rare proof of the enthusiasm and fertility of his mind. His health, which for many years had been insecure, was especially so of late. He had suffered from glycosuria for several years, and at times, particularly towards the end of last year, he suffered severely from gout. Although Dr. Fothergill was able to spend Christmas in Staffordshire, his maladies increased shortly after his return, and gangrene of the foot supervened, ending ultimately in fatal coma on the 28th ult. He was married in 1880 to the daughter of the late Mr. Hammersley of Leek, but has left no children.

Dr. Fothergill was known to a large circle personally, but to a still wider circle by his writings. His physique and his powerfully marked mental characteristics would have made him a striking figure in any walk of life, and he certainly succeeded in realising what he used to say every man should do—viz., to leave behind a strong impress of a distinct individuality. Gifted, in spite of his ponderous bulk, with an immense power of work and an indomitable energy, one can nevertheless admire the way in which he bravely struggled against difficulties, many of them connected with his own health. In his profession he exhibited great natural skill in interpreting the indications for treatment of disease, and in many cases of difficulty he would clear up the lines of treatment with a hand that was felt to be masterly. This may be well seen in his work on the "Heart and its Diseases," and in the "Practitioners' Handbook of Treatment," both of which have been extensively read. Dr. Fothergill did excellent service in frequently declaiming against the tendency to employ the stethoscope and other instruments of precision in the search after physical signs, to the neglect of the study of the rational symptoms of disease; and he constantly warned students and young practitioners against attending to pathological and histological minutiæ to the exclusion of broader views. Throughout his writings there is to be found much shrewd and practical advice to students, to an extent that is noteworthy in the case of one who was not actually engaged in medical tuition. Physiology was a branch of study which Dr. Fothergill cultivated and employed in all that he published, as will be seen particularly in his book entitled the "Physiological Factor in Diagnosis," which is full of racy reading. Nor did he ever tire of pointing out, in a very forcible manner, how surely physiological inquiries guide us in the right direction in our therapeutics, and "light up areas never to be successfully illumined by empiricism." Some of his more recent labours were devoted to the application of physiology to the study of nutrition in disease, such as the foods suitable for the gastric disturbances of phthisis, the search after preparations suitable for those who lack fat and yet loathe cod-liver oil, and the

diabetics of gout. Gout was a subject to which Dr. Fothergill latterly devoted himself extensively, and on which he wrote largely. A complete list of the published works and papers of this voluminous writer would be a long one, but the last book he wrote was on "Vaso-renal Change *versus* Bright's Disease," completed in 1887. Shortly before his fatal illness he was preparing for publication in this journal a paper on kidney disease in phthisis, believing that old nephritis often casts the balance when phthisis puts in an appearance. There are many other subjects upon which he was engaged, but we have not space to refer to them. The announcement of Dr. Fothergill's death will be received with sorrow both in this country and also across the Atlantic, where his publications had brought him a wide reputation. Those who knew him personally will miss one who, with all his forcible, impetuous, and emphatic manner, could show himself a warm friend; while those who were only acquainted with him through his writings will sincerely regret that the pen which always wrote what was instructive in a vivacious and interesting, oftentimes original and pungent, style is for ever laid aside.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination at a meeting of the Examiners on the 2nd inst.:—

Anatomy and Physiology.—**Basil Boake, Student of the School of Physic, Ireland; John Campbell, of Belfast; H. F. Hayes, of Melbourne; R. D. Hotchkis, of St. Bartholomew's Hospital; G. G. Larcombe, of Bellevue Medical College; A. P. Morris, of Owens College; T. M. Tibbetts, of Birmingham.**

Anatomy only.—**M. J. Houghton and H. B. Rowbotham, of Birmingham; C. Wintle, of Bristol; G. M. Mellor, of Edinburgh; W. W. Exley and W. E. Pollitt, of Leeds; J. A. Evans, G. F. Knipe, and S. Melville, of Liverpool; A. W. Gilchrist, of Marseilles; R. Clegg, A. W. Senior, J. W. Smith, Reginald Smith, of Manchester; E. R. Bastard, E. B. Cutting, T. J. Henning, of St. Bartholomew's Hospital; W. Wright, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy; R. T. Cassal, of University College.**

Physiology only.—**J. F. Atkins, H. S. Chavasse, T. Dixon, and C. B. Hillyar, of Birmingham; C. Bernard and Tom Pitt, of Bristol; F. W. Clark and G. H. Crofts, of Liverpool; J. Fearnley, J. H. Spray, and W. A. Stott, of Leeds; J. S. Pickford, of Manchester; B. B. T. Thorne and J. Williamson, of St. Bartholomew's Hospital; G. Pernet, of University College; O. E. Keller, of Zurich and Leipsic.**

The following gentlemen passed on the 3rd inst.:—

Anatomy and Physiology.—**A. E. Atkinson, of Middlesex Hospital; Charles Coles, of St. Bartholomew's Hospital; J. Guinane, of Toronto; S. C. Hornenaji, of Bombay; C. J. Weichert, of University College Hospital.**

Anatomy only.—**A. S. St. John, of Bristol; P. A. Longhurst, of Charing-cross Hospital; A. L. Allworth, C. B. Braithwaite, and H. Hodgson, of Guy's Hospital; James Cross, Henry Tempest, and L. F. West, of Leeds; G. R. Jones, of Liverpool; L. F. Houghton, of St. Mary's Hospital; R. Henry and W. T. Pauling, of St. Thomas's Hospital; A. G. Minshull, of University College.**

Physiology only.—**V. H. Barr, of Guy's Hospital; H. M. Cowen, of Toronto and Mr. Cooke's School of Anatomy; G. W. Holton, of Manchester; A. Jeffreys, of St. Thomas's Hospital; A. Kidd, of Middlesex Hospital; B. A. K. Lukmani, of Bombay; H. F. S. Nunes, of St. Mary's Hospital; S. H. Rentzsch, of King's College; H. Williamson, of Cambridge; E. B. Wrench, of Cambridge and St. Thomas's Hospital; Hugh Clift and C. H. Graham, of St. Bartholomew's Hospital; A. G. Hebblethwaite and L. A. Johnson, of Leeds; P. A. Colmer, P. A. Green, C. H. Hemming, and H. L. Powys, of the London Hospital.**

The following gentlemen passed on the 4th inst.:—

Anatomy only.—**Henry G. D. Hallett, Frederick G. Lloyd, and Nicholas Marder, of St. Bartholomew's Hospital; William A. Hampton, of Middlesex Hospital; Thomas C. Hughes, of Westminster Hospital; Albert G. Parrott, of the London Hospital; Henry C. Perkins, of King's College; Charles E. Pollock, of Guy's Hospital; Alfred S. Jones and Alexander Morrison, of University College; James Mountford, of Charing-cross Hospital; Christopher Robson and Harry B. Williams, of St. Thomas's Hospital; George Yeoman, of Cambridge and St. Thomas's Hospital.**

Physiology only.—**Henry J. F. Badcock, of Charing-cross Hospital; Herman L. A. Keller, of St. Thomas's Hospital; Nicholas F. Kendall, of St. Bartholomew's Hospital; Herbert L. Morgan, of Westminster Hospital; Harold Vernon Prynne, of Middlesex Hospital; H. M. Weaver-Bridgman, George Y. C. Hunter, and Hubert W. Roberts, of St. George's Hospital; Arthur C. Fox, George E. Gillett, Charles T. W. Hirsch, Herbert Knevitt, and Edward J. F. Moore, of the London Hospital; Bernard B. Gilpin and Alfred Hugh Minton, of King's College; Herbert M'D. Philpotts and Alfred E. Shaw, of St. Mary's Hospital; Richard F. J. Gill and Ernest N. Smith, of University College; George W. B. Featherstone, of Guy's Hospital and Mr. Cooke's; Charles E. Salter, of Guy's Hospital.**

The following gentlemen passed on the 5th inst.:—

Anatomy only.—**Cecil G. Hoysted, of Charing-cross Hospital; Graham T. B. Blick, of St. Mary's Hospital; Cyril G. A. Le Mesurier, of St. George's Hospital; Henry J. Curtis, of University College; Charles S. Palmer and Woodley D. Slyman, of St. Bartholomew's Hospital; John M. James and Frank Bryant Peat, of St. Thomas's Hospital; William H. Goodson and Charles S. Kirton, of the London Hospital; Douglas L. Freeland and Arnold Lawson, of Middlesex Hospital.**

Physiology only.—**Gerald S. O. Howes, Arthur E. Norris, John R. R. Pollock, and Herbert L. E. Wilks, of Guy's Hospital; Charles A. Coventon, Edwin Henry, and Walter W. Smith, of St. Bartholomew's Hospital; Anthony Dalzell, of St. Thomas's Hospital; George Martyn, of King's College; Arthur J. Lattey, of St. George's Hospital; Charles H. C. Visick, of University College; Wm. T. Davies and David N. Morgan, of the London Hospital.**

The following gentlemen passed on the 6th inst.:—

Anatomy and Physiology.—**George H. Knapp, of Guy's Hospital; Gervase E. Newby, Guy E. M. Wood, and Paul Guinand, of University College; Charles W. J. Chepnell, of St. George's, Edinburgh, and Mr. Cooke's School of Anatomy; Frank D. Harris and Jackson A. Atkinson, of St. Mary's Hospital; A. D. Cooper, of Grant Medical College, Bombay; John Kennedy, of the London Hospital; Wm. M. Thomas, of Charing-cross Hospital; O. V. Pisani, of King's College, and Henry Reeks, of St. Bartholomew's Hospital.**

Anatomy only.—**Reginald W. Prentice, of King's College Hospital; William R. Ashworth, of Westminster Hospital; Isaac Newton and Leslie Fletcher, of Charing-cross Hospital; Wm. Edward Sargent and John N. Martin, of St. Bartholomew's Hospital; Frank Bentley Shaw, of Middlesex Hospital.**

Physiology only.—**Edwin H. Howell, of the London Hospital; Waring Robinson, of Middlesex Hospital; H. L. Carre-Smith and Robert D. Muir, of Charing-cross Hospital; William Bligh, of Guy's Hospital; Gwilym C. Davies, of St. Bartholomew's Hospital; Chas. D. Cooper, Rupert James, and James C. Burton, of University College.**

The following gentlemen passed on the 7th inst.:—

Anatomy and Physiology.—**Sidney H. Snell, of University College.**

Anatomy only.—**Arthur D. Parr-Dudley, of University College; Arthur Plumbe and Henry Watts, of the London Hospital; Howard W. Gwyn and H. J. R. Jones, of the London Hospital and Mr. Cooke's School of Anatomy; Archibald Graydon, William F. E. Milton, John H. Sims, and Hugh G. Williams, of St. Thomas's Hospital; Alex. Addie, James A. Mortimore, and John M. Rogers-Tillstone, of St. Bartholomew's Hospital; Louis A. Francis, of St. Mary's Hospital; Edwd. Cornish and Edward Woodiwiss Wheatcroft, of Guy's Hospital; John E. M. Jenkins, of Charing-cross Hospital; Stuart C. M. Nourse and F. H. R. J. U. Walker, of St. George's Hospital.**

Physiology only.—**Alonzo G. Rider and William H. J. Huthwaite, of University College; W. S. Mercer, of Charing-cross Hospital; Harry de R. Morgan, Gordon Padmore, and Arthur W. Read, of St. George's Hospital; Alban D. Davies, of the London Hospital; David O. Jones and George Lombardi, of Middlesex Hospital; Ernest J. Finch, of St. Mary's Hospital; James Keigwin Kempthorne, of King's College; Arthur W. Tidbury and Charles H. Whiteford, of St. Bartholomew's Hospital.**

The following gentlemen passed on the 9th inst.:—

Anatomy and Physiology.—**Fredk. J. Charlton and John G. Hewitson, of University College; Claude S. Hawkes, of the London Hospital; Charles A. Lapthorn, of Middlesex Hospital, and William Richard O'Reilly, of Westminster Hospital.**

Anatomy only.—**John K. Birdseye and Jas. Cooper, of St. Bartholomew's Hospital; Arthur Haines, of St. Thomas's Hospital; Richard H. Collins, of Charing-cross Hospital; John M. Fry, of Westminster Hospital; Joseph B. Tindall, of King's College.**

Physiology only.—**Ernest C. Bridges, of St. Bartholomew's Hospital; Samuel Herbert Perry, of King's College; Sydney C. Smith, of Middlesex Hospital; Charles E. A. MacLeod, of Westminster Hospital, and John H. F. Way, of St. Thomas's Hospital.**

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Member, having previously passed the necessary examination, and having since attained the legal age (twenty-five years), was admitted a Fellow of the College:—

Kidd, Hugh Cameron, L.R.C.P.Lond., Tavistock-rd., Westbourne-pk.

The following Member, having passed the necessary examination and having obtained a Medical qualification, was admitted a Member of the College:—

Mason, Hubert Dempster, L.K.Q.C.P.I., Yardley Fields, Yardley, Worcestershire.

The following gentlemen, having passed the necessary examination, were admitted Licentiates in Dental Surgery:—

Bates, Reginald Henry, Vincent-square, Westminster.
Constant, Thomas Edward, Harmer-street, Gravesend.
Digby, Everard, Ruskin-road, Tottenham.
Fisk, Edgar Charles, High-road, Kilburn.
Harris, Theodore William, Oak Lodge, Argyll-road, Ealing.
Hooton, William Arthur, Kersal Towers, Higher Broughton.
Horne, Albert Driver, Abbeville-road, North Clapham.
McDonald, William James, Egbert-street, St. George's-road.
Minett, Thomas Samuel, Chesterton-road.
Stack, Richard Theodore, Westland-road, Dublin.
Todd, Frederick, Clock House, Catford Bridge.
Washbourn, Henry Addison, The Bank House, Middlesborough.

TESTIMONIAL.—Mr. Jas. F. G. Pietersen, L.R.C.P.I., was, on June 27th, presented by the patients and staff of Camberwell House Asylum with a handsome walnut-wood writing case on the occasion of his resigning the post of senior assistant medical officer.

BURIAL REFORM.—The Chapter of the Rural Deanery of Kensington, on the 4th inst., passed a resolution condemning the present mode of burial, and urging the Home Secretary to institute an inquiry, with a view to legislation on the subject.

RECREATION GROUND.—A convenient and eligible site at Penge, comprising four acres, has just been adapted and appropriated, in perpetuity, for public use as a recreation ground.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of this Fund, held on the 10th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £59 was distributed among the several applicants.

GREAT YARMOUTH HOSPITAL.—The fiftieth report of this institution was submitted to the governors and subscribers at the annual meeting held on the 28th ult. It appeared that the balance-sheet was satisfactory, notwithstanding a decrease in the collections at places of worship and the Saturday collection. It is expected the new building will be opened early in September.

THE NEW VICTORIA INFIRMARY, GLASGOW.—The cutting of the first turf of the site on which the infirmary is to be erected was performed by Mr. W. Rennie Watson, chairman of the executive committee, on the 4th inst. The part of the infirmary which is to be erected at present is the administrative block and one ward. The estimated cost of the whole completed building is £50,000.

FOOTBALL FATALITY.—As the result of the injuries received, whilst playing in a match against a Manchester team in April last, Mr. Percy Crompton Jackson, a member of the Bolton Football Team, died at Cheadle Asylum on Monday last. At an inquest held on the body on Wednesday, the medical evidence showed that the cause of death was the epileptic form of convulsions. A verdict of "Accidental death" was returned.

THE AFTER-CARE ASSOCIATION FOR POOR AND FRIENDLESS FEMALE CONVALESCENTS UPON LEAVING ASYLUMS FOR THE INSANE.—This Association held its annual meeting on July 4th at 83, Lancaster-gate, W., the Earl of Meath, President, in the chair. The report stated that good progress had been made during the past year. Full information can be obtained from the secretary, H. Thornhill Roxby, Emblewood, Osbaldestone-road, London, N.

THE ROYAL VETERINARY COLLEGE.—The thirteenth annual general meeting of the subscribers was held last week, the Duke of Cambridge (the President of the College) occupying the chair. The number of students on the books was 291, against 285 the previous year. Sixty-one students had obtained the diploma of the Royal College of Veterinary Surgeons, the number last year being forty-two. The total income amounted to £9827, and the expenditure to £9806. The report was adopted.

DEVONSHIRE HOSPITAL, BUXTON.—From the half-yearly statement of this hospital, issued on the 10th inst., it appears that during the period ending the 30th ult., 1029 in-patients have been admitted, 743 discharged as improved, 23 as no better, 4 died, and 238 remained on the books. Of out-patients 71 have been admitted, 40 were discharged improved, and 18 remained on the books at the end of the half year. Of the 1029 in-patients, 907 were of rheumatic or gouty character. The receipts from annual subscriptions were somewhat in advance of the amount received during the corresponding period of last year.

SOCIETY FOR THE STUDY OF INEBRIETY.—A general meeting was held on the 3rd inst. in the rooms of the Medical Society of London, the President, Dr. Norman Kerr, in the chair. Surg.-Maj. G. K. Poole, M.D., read a paper entitled "Is Inebriety Curable?" The position of inebriety as a diseased neurotic condition was laid down, the remedial treatment embracing medical and religious remedies. Statistics were quoted showing an average of 30 per cent. in the cure of cases, a percentage equal to that of most other diseased conditions. The necessity for the extension of the Habitual Drunkards Act was pointed out; also the advisability of the superintendents of all genuine homes for the treatment of inebriates keeping a record of cases treated, after the form sanctioned by the managing committee of the Dalrymple Home. The treatment must consist in (1) an earnest desire of the patient to be cured; (2) the use of religious, moral, and medical remedies; and (3) the adoption of means to assist these by affording the sufferer a ready way to place himself under the control of others in a home of refuge.

PROVINCIAL HOSPITAL SUNDAY AND SATURDAY COLLECTIONS.—The Wolverhampton Hospital Sunday total collection for the year has amounted to £600 17*s.* 4*d.* The Reading Hospital Saturday contributions on the 30th ult. realised £239 19*s.* 2*d.* A similar collection in Hull on the 7th inst. shows a total of £358 14*s.* 2*d.* The annual out-door collection in aid of the Dewsbury and District Infirmary, on Saturday last, amounted to £53. The Warwick Hospital Saturday Fund for the year amounted to a total of £1081 0*s.* 2*d.* The Croydon Hospital Saturday collection on the 7th inst. shows a total of £31 19*s.* 10*d.* The Hospital Saturday collection, last week, at Maidenhead, on behalf of the Cottage Hospital, realised £53 3*s.* 6*d.*, but additional contributions are expected. The Woolwich Hospital Saturday collection, made on Saturday last, amounted to £207 10*s.*

THE PUBLIC HEALTH SERVICE.—In reference to the decision of the Town Council of Bradford not to re-elect Dr. Hime as medical officer of health for the borough (noticed in a recent issue), the members of the North-Western Branch of the Association of Medical Officers of Health, at a special meeting held on the 28th ult., at the offices, King-street, Manchester, unanimously passed, *inter alia*, the following resolution: "The North-Western Branch of the Society of Medical Officers of Health learn with much regret that the Bradford Corporation have decided not to reappoint their medical officer of health, Dr. Hime, and that they have come to this determination whilst admitting that he is an officer of great ability and has discharged the duties of his post impartially and satisfactorily. The North-Western Branch of the Society of Medical Officers of Health take this opportunity of pointing out that it is desirable some security of tenure should be given to medical officers of health, so that they may no longer be liable to sudden removal without proof of incapacity or neglect of duty being substantiated to the satisfaction of a properly constituted authority, the accused medical officer of health being entitled to reply to the charges against him. Inasmuch as the guardians of the poor are not permitted to discharge district medical officers without the sanction of the Local Government Board, and due inquiry if demanded, it appears reasonable to ask that medical officers of health should enjoy a similar measure of security for the retention of office." It was resolved that a copy of the resolution should be forwarded to the Local Government Board. As to the condition of cemeteries, it was also resolved that a memorial be presented to the Home Secretary, praying that full inquiry be made into the state of all public burial grounds, especially those situated in urban districts.

THE CYPRUS SOCIETY.—H.R.H. Princess Christian has consented to become President of this Society, which has been formed for the advancement of hospital and educational work in Cyprus. The primary object of the Society is the establishment of a hospital at Kyrenia, where there is none at present, with the prospect of its subsequent development into a convalescent hospital, so very much needed for the island. Kyrenia, situated on the north coast, is admirably adapted for this purpose, being one of the healthiest parts of the island, and remarkable for its beautiful scenery. In accordance with the wish of the donors of the site it will be named the "Gordon Home," in commemoration of General Gordon. After the hospital has been built and equipped (which will be of the nature of an English cottage hospital), the Society hopes to supply a need which has been often deeply felt—the training of native nurses, and the establishment of movable dispensaries and of ambulances. Some of the influential Greeks of the island are anxious for technical, industrial, and agricultural schools, which the Society hopes to found, as well as assist generally the development of education. The names of the Secretary of State for the Colonies and of the High Commissioner of Cyprus appear on the list of subscribers; and the Society is being aided by many whose position will command the respect of such as may be interested in such work. The Society is in no way political, and by no means wishes to encroach upon the work which is being carried on by the Government, but to supply that which is beyond its province and its resources. Further information will be gladly given by the Hon. Secretaries, Miss S. Chapman Hand and Wm. White, Esq., F.S.A., 30A, Wimpole-street, London, W. Hon. Treasurer: Capt. G. A. K. Wisely, R.E., 11, Strathmore-gardens, Kensington, W. Bankers: London and County Bank, High-street, Kensington, W.

THE NEW DISPENSARY, BRISTOL.—The formal opening by the Mayor, Mr. Charles Wathen, of this new commodious building, erected in Castle-green, took place on Tuesday last.

DEATH UNDER CHLOROFORM.—At an inquest recently held at the Royal Berks Hospital on the body of a patient who had died while under the influence of chloroform, the jury exonerated the medical staff of the institution from all blame in the matter.

ROYAL OPHTHALMIC HOSPITAL.—On the 4th inst., a deputation waited on the Lord Mayor at the Mansion House, in order to present a petition on behalf of this institution for a grant of land as a gift for the purpose of enlarging and remodelling the hospital. The site desired belonged to the Bridge House Estates, and the Lord Mayor promised that he would give every assistance in his power.

DONATIONS.—The Cordwainers' Company last week granted donations of 25 guineas each to the London Hospital and the Metropolitan Convalescent Institution, Walton-on-Thames. An anonymous donor having just given £500 towards the amount due on the building fund of the Bristol Children's Hospital, there remains £700 only to be raised to claim the Mayor's promise of £200.

SANITARY INSPECTORS AT CROYDON. — The members of the Association of Public Sanitary Inspectors, on the invitation of Dr. Alfred Carpenter, visited Croydon on Monday last to inspect the sanitary works of the town. The chief interest of the visit was the inspection of the sewage farm of the Croydon Corporation at Beddington. The system in use is that of broad or surface irrigation, and as a rule the sewage passes over three separate fields. Financially the working of the farm is deemed very satisfactory. The outlay for the year shows a surplus of £1000, which is appropriated entirely to pay interest and purchase-money for the land.

THE CANE-HILL ASYLUM, SURREY.—At the Surrey Quarter Sessions, held last week, an important discussion took place on the Local Government Bill and the proposed enlargement and alterations of this asylum. The committee of the institution recommended, in view of the introduction of the Local Government Bill, that further steps for the enlargement be postponed. During a prolonged discussion, a motion, proposed and seconded, "That the want of accommodation in the County Asylum, from the increased and increasing number of lunatics, makes it desirable that no further time should be lost in the completion of Cane-hill Asylum for the reception of 2000 patients, as ordered by the Court, and that the work be proceeded with under the direction of the Cane-hill Committee," was, on a division, lost by a narrow majority of two.

AMBULANCE DRILL.—The Ambulance Section of the Ayrshire Yeomanry Cavalry, commanded by Surgeon W. J. Naismith, M.D., was at the recent inspection put through the following drill:—Dismounted by sections and formed up two deep; carriage of wounded by two-, three-, and four-handed seats; formed detachments for sword-stretcher drill. No. 1 formed sword-stretcher. No. 2 with carbines, to form escort; party advanced at the double to recover wounded under fire; wounded man (gunshot wound of thigh with hæmorrhage) dressed, placed on sword-stretcher and retired, escort opening fire to the front during application of first dressings by stretcher bearers, and retiring firing to cover retreat of the party. This portion of the drill bears special application (as, indeed, does almost the entire design of ambulance work as taught to reserve cavalry), to affairs of outposts, where with reconnoitring parties or outlying pickets, the services of the Army Medical Staff men are not available. No. 1 detachment showed the method of removal of a wounded man from his horse when unable to dismount, the method varying according to the particular side of the body (right or left) which is injured. The section was then mounted and formed threes right, with a view of showing how a wounded man who is still able to remain mounted may be best removed. The centre files, being the wounded, had their right or left arms bandaged and slung, or sword cuts of the head dressed, the flank files dividing the bridoon rein of the wounded man between them, and leading his horse steadily between their own, supporting his body in the saddle the while by their disengaged arms. The threes thus formed were marched and wheeled several times, then formed up and dismissed to their respective troops.

MEDICAL NOTES IN PARLIAMENT.

Victoria University Bill.

IN the House of Lords on the 5th inst., the Victoria University Bill was read a second time.

Swine Fever.

On the 6th inst., Lord Cranbrook, in reply to Lord Egerton, said that every effort would be taken by the Agricultural Department of the Privy Council to check the spread of swine fever.

Habitual Drunkards Act (1879) Amendment (No. 2) Bill.

On the 9th inst., the report of amendments to this Bill was brought up and received, and on the 10th inst. it was read a third time.

Metropolitan Asylums' Board.

On the 9th inst., Mr. Smith, in reply to Mr. Pickersgill, said that the Government were not aware of any sufficient ground for appointing either a new Commission to investigate the proceedings of the Metropolitan Asylums Board, or to extend the powers of the Commissioners now sitting with regard to the Metropolitan Board of Works, so as to include an inquiry into the Asylums Board.

The Truck Acts and Hospital Collections.

In reply to Mr. Sexton, Mr. Matthews said that the inspector of factories in Belfast had not interfered to prevent the collection by employers of voluntary contributions by the men in aid of the local hospitals. He had explained to the employers that, if such collection were made by way of deduction from wages without the written assent of the workmen, it would appear to be contrary to the statute.

Lunacy Acts Amendment Bill.

On the 10th inst., Mr. Smith announced that the Government had decided to drop the Lunacy Acts Amendment Bill.

Contagious Diseases Acts in Madras.

In reply to Mr. W. M'Laren, Sir J. Gorst stated that the orders of the Government of India for the suspension of the Contagious Diseases Acts in Madras, Bombay, and Bassein were issued on May 19th. The Secretary of State has been informed, in answer to an inquiry made by him, that in Bombay the suspension did not take place till June 30th, but that the Government of India is making inquiries into the reason for this delay.

Factory Labour in India.

Sir J. Gorst, in reply to Mr. S. Smith and Mr. James M'Laren, said that the careful attention of successive Secretaries of State and Governments of India had been from time to time given to the subject of factory labour in India. A Commission was appointed ten years ago, and reported in favour of closing the mills on Sundays, and restricting the hours of labour on week days. Act No. 15 of 1881 regulated factory labour, and restricted the employment of children. A special report on Indian factories had recently been drawn up by Mr. Jones, formerly Inspector of Factories in Bombay, which is printed as an appendix to the report of the Chief Inspector of Factories (in this country) for the year ending Oct. 31st, 1887. On May 3rd a despatch was sent by the Secretary of State in Council to the Government of India, calling attention to this report, asking for an early report on the working of the Indian Factory Act, and inquiring whether it was proposed to modify the Act in the direction of additional stringency. To this despatch the Secretary of State is now awaiting a reply.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, WM. A., M.B.Edin., Assistant Medical Officer, Kent County Asylum, Maidstone, has been appointed Medical Officer to the Bucks County Asylum, Aylesbury, vice H. L. Grant, resigned.

BRACKENBURY, H. B., M.R.C.S., L.R.C.P.Lond., has been appointed Resident Obstetric Assistant to Westminster Hospital.

CAMPBELL, R. J., M.R.C.S., L.R.C.P.Lond., has been appointed House Physician to Guy's Hospital.

CAUDWELL, E., M.R.C.S., L.R.C.P.Lond., has been appointed Senior House Physician to Westminster Hospital.

CHASSLEY, R. S., B.A.Oxon., M.R.C.S., L.R.C.P., has been appointed Junior House Surgeon to Westminster Hospital.

CROOK, H. E., M.R.C.S., L.R.C.P.Lond., has been appointed House Physician to Guy's Hospital.

EARDLEY-WILMOT, ROBERT, M.B.Lond., M.R.C.S., L.R.C.P., has been appointed Visiting Medical Officer to the Midland Counties Home for Chronic and Incurable Diseases, Leamington, vice J. J. W. R. Boyer, M.D., resigned.

EDWARDS, R. E. J., M.B.Edin. and C.M., has been appointed Medical Officer for the Rural and United Districts, Halifax.

GREEN, E. COLLIER, M.R.C.S., L.R.C.P.Lond., has been appointed Ophthalmic Surgeon to the Derbyshire General Infirmary.

GRIFFITHS, C. NIEL, M.R.C.S., L.R.C.P. and L.M. Ed., has been appointed House Surgeon to the London Throat Hospital, Great Portland-street.

LAMBERT, F. S., M.R.C.S., L.R.C.P.Lond., has been appointed Junior House Physician to Westminster Hospital.

LAWSON, T. C., M.R.C.S., L.S.A., has been appointed Medical Officer of the Capel District, Samford Union.

MACKENZIE, A. G., M.R.C.P.Edin., F.R.C.S.Edin., has been appointed Medical Officer for the Third District of the Church Stretton Union.

METZGAR, C., F.R.C.S.Eng., L.R.C.P.Lond., has been appointed House Surgeon to Guy's Hospital.

POOLMAN, A. E., M.R.C.S., L.R.C.P.Lond., has been appointed House Surgeon to Guy's Hospital.

RABY, JOHN, M.R.C.P., L.R.C.P.Edin., M.R.C.S., has been re-appointed Medical Officer of Health, Totnes District, Totnes Union.

RICHARDS, WILLIAM, M.B., C.M.Edin., Resident Surgeon, Birmingham General Dispensary, has been appointed Resident Surgeon to the Highgate Branch of the Birmingham General Dispensary, vice J. H. North, M.R.C.S., L.R.C.P., resigned.

ROBINSON, HENRY BETHAM, M.D.Lond., F.R.C.S., has been appointed Resident Assistant Surgeon to St. Thomas's Hospital.

ROBINSON, W., M.D.Durh., M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Borough of Gateshead.

SOLLEY, ERNEST, F.R.C.S., has been appointed Surgical Registrar to St. Thomas's Hospital.

VINES, CHAS. STUART, M.R.C.S., L.R.C.P.Lond., has been appointed Resident Medical Officer to the Ramsgate and St. Lawrence Royal Dispensary, and the Seamen's Infirmary.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—Surgeon to out-patients.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon. Board and rooms.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. No salary, but residence, board, and washing provided.

HALIFAX INFIRMARY AND DISPENSARY.—Assistant House Surgeon. Salary 50 per annum, with residence, board, and washing.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Senior House Surgeon. Salary 50 guineas per annum, with board and residence.

MORPETH DISPENSARY.—House Surgeon. Salary £120 per annum, furnished house, gas, and coals free.

NORFOLK AND NORWICH HOSPITAL.—Assistant Surgeon on the Honorary Medical Staff.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician, tenable for two years. Salary £50 per annum, with board, lodging, &c.

Births, Marriages, and Deaths.

BIRTHS.

DAVY.—On the 3rd inst., at St. John's-road, Dover, the wife of Surgeon-Major F. Arthur Davy, M.D., Medical Staff, of a daughter.

LEWIS.—On the 6th inst., at 453, Brixton-road, S.W., the wife of T. Preston Lewis, M.D., of a daughter.

STIVENS.—On the 5th inst., at Kensington-gardens-square, the wife of B. Lyne Stivens, M.D., of a daughter.

MARRIAGES.

HARRIS—GOODWIN.—On the 5th inst., at St. Mary's, Stoke Newington, P. Traer Harris, M.R.C.S., L.S.A., L.D.S.Eng., of Alma House, Cheltenham, to Emily Maud, daughter of Benj. Goodwin, of 100, Amhurst-park, N.

HUBBARD—VIZARD.—On the 10th inst., at St. Paul's Church, Hemel Hempstead, by the Rev. Edward Gallop, Arthur John Hubbard, M.D., son of the late John Waddington Hubbard, M.R.C.S., L.S.A., formerly of Market Bosworth, to Charlotte Marian, youngest daughter of the late Edward Vizard, Esq., formerly of Duraley.

HUMPHREYS—POLLARD URQUHART.—On the 5th inst., at St. Luke's, Chelsea, by the Lord Bishop of Derry and Raphoe, assisted by the Rev. Gerald Blunt, M.A., Rector of the Parish, Charles Style Humphreys, M.D., of 4, Vernon Chambers, Bloomsbury, son of J. J. Hamilton Humphreys, Esq., of Lincoln's-inn, to Octavia Harriet, daughter of the late William Pollard Urquhart, Esq., of Kinturk House, Castle Pollard, in the county of Westmeath.

JACKSON—BIRD.—On the 4th inst., at St. Matthew's, Ealing Common, John Lowthian Jackson, M.B., C.M., of Hedon, near Hull, to Ida Beatrice, only daughter of Henry Bird, St. Aubyns, Hamilton-road, Ealing.

RODMAN—HOVENDEN.—On the 4th inst., at St. Matthew's Church, Croydon, George Hook Rodman, M.D., of East Sheen, only son of George Hook Rodman, Esq., of South Norwood, to Margaret, eldest daughter of Robert Hovenden, Esq., F.S.A., of Croydon.

DEATHS.

DOMVILLE.—On the 8th inst., at South Hill, Paignton, Henry Jones Domville, C.B., M.D., Inspector-General of Hospitals and Fleets and Honorary Physician to the Queen, in his 70th year.

JOY.—On the 6th inst., at Bower-terrace, Maidstone, Henry W. Joy, F.R.C.S., J.P., aged 82.

WATSON.—On the 4th inst., at Heigham Hall, Norwich, the infant son of Charles John Watson.

WIGHT.—On the 1st inst., at Aberdeen, John Wight, M.D., aged 51.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 12th, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 6	29·64	S.	57	55	97	65	54	·22	Overcast
,, 7	29·96	N.E.	54	52	97	63	52	·08	Overcast
,, 8	30·06	E.	56	55	104	67	52	.03	Cloudy
,, 9	30·05	W.	62	56	122	70	52	..	Bright
,, 10	29·95	N.W.	56	51	107	67	51	·03	Cloudy
,, 11	29·69	N.W.	46	44	101	56	44	·35	Overcast
,, 12	30·00	N.W.	52	50	..	54	50	·04	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

"HANDLING" AMERICAN MEDICAL DEGREES.

A CORRESPONDENT favours us with the following letter received by him, and which he thinks is deserving of publication:—

"Dr. ——, L.R.C.P., ——.

"DEAR DOCTOR,—Having read your article in the *Journal of Medicine*, and thereby learned your address, I take the liberty to write you on a matter that may be of considerable importance to you and your colleagues. I desire to engage a responsible medical gentleman to handle American medical degrees and do business with physicians and surgeons only. I have been informed there is quite a large number of medical men in first-class standing in your country that do not have the degree of 'M.D.' that would like very much to obtain it if they could get it from a responsible institution. If you do not care to engage with me, perhaps you will know of some person you could recommend. I hope you will give this matter your immediate attention, and trust you will be as confidential with me as such business demands.

"I am, fraternally,

"H. B. FREELAND, A.M., M.D.

"55, Common-street, Lynn, Mass., U.S.A., June 27th, 1888."

Pour y Parvenir will find Mr. Power's paper on Transplantation of the Cornea in the Report of the Ophthalmological Congress held in London in 1872. Sellerbeck's memoir is contained in Graefe's Archiv f. Ophthalmologie, 1873, vol. xxiv.; Neelsen and Angelucci's in the Klinische Monatsblätter für Augenheilkunde, 1880.

Anxious (Llandilo).—It is hardly necessary to say that the statement is utterly and ridiculously untrue. We may refer our correspondent to a paragraph published in THE LANCET of Oct. 15th, 1887, p. 794.

EXAMINATION OF SPUTUM.

To the Editors of THE LANCET.

SIRS,—This evening, while examining some sputum with Dr. Gibbes' staining solution for bacterium tuberculosis, I found objects in the sputum which I was unable to distinguish from bacterium tuberculosum. Not feeling quite satisfied, however, I took some tragacanth mucilage, and subjected it to the same processes as the sputum had previously undergone. On microscopic examination, I was pleased to find my tragacanth specimen contain exactly the same bodies as I had previously been unable to distinguish from bacterium tuberculosum, and which must have been derived from the staining solution. I should be glad to know whether other observers have had similar experience; for as this point is of such vast importance in the diagnosis of phthisis, it is pleasant to learn how easily mistakes may arise when dealing with these bacteria.

I am, Sirs, yours faithfully,

Putney, July 5th, 1888. EDWARD F. GRÜN.

THE LUCE FUND.

AMOUNT already subscribed, £84 18*s.* 6*d.*; Dr. Harris, £1; Mr. Bickerton, 10*s.* 6*d.* Further donations in aid of Mrs. Luce will be gratefully received by Dr. Caton, 31, Rodney-street, or by Dr. Sheppard, 64, Durning-road, Liverpool.

Protest.—1. Assuming the extract from the report of the Lock hospital to be correct, we agree with our correspondent that no viler official document was ever penned. In the article to which reference is made we expressed an opinion, to which we adhere, that the prevention of venereal diseases does not imply the encouragement of vice, and we hope that all other medical officers will take the same views as our correspondent has taken. The tone assumed by the military authorities is utterly unjustifiable. At the same time we regret that our correspondent did not, for his own sake as well as for that of the gentleman whose cause he so generously espoused, try the *suaviter in modo* before adopting the *fortiter in re.*—2. The case seems a very hard one, and our correspondent ought to have redress, which, we think, under the circumstances cannot be denied him, if he acts calmly, dispassionately, and under good legal advice.

Enquirer.—Such a person has no medical status. He cannot hold any office or discharge any duty proper to a registered practitioner. Provided he uses no title implying that he is recognised and registered as a medical man in the legal sense of the word, and that he does not practise as an apothecary, we do not see that he violates the law.

DEATH CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—I should be glad to call the attention of the profession and of yourselves to the need of some alteration of the custom of giving certificates of death to the relatives of deceased patients. This practice may, and I think does, at least occasionally, prevent the return of the true cause of death. Many persons have a dislike that cancer, scrofula, or even phthisis should appear on the death certificate of a relative, and especially is this feeling the case when the death has been caused by excessive indulgence in alcohol. It was only yesterday I was sent for expressly to see a lady on whose sister's certificate of death I had added in parentheses, "alcoholic," after giving disease of the liver as the cause of death. To cross out the objectionable word was not sufficient, and I was urgently requested to write a fresh certificate, and reluctantly I omitted the word that undoubtedly described best the true cause of the liver disease; and thus, with the considerable increase in the knowledge of disease by the public, we have to be cautious to avoid offence by the wording of death certificates, even at the expense of their statistical value.

In a pamphlet I published a short time ago on the wants of the general practitioner, at page 19 I suggested that "death certificates should be paid for by the State, for whose benefit they are given." Now, if this were the case (as it ought to be), we should no doubt be required to send the death certificate direct to the registrar; and this would prevent the odium that a conscientious medical man may not infrequently incur when he gives the true cause of death, and these certificates would become of greater public utility because of greater accuracy.

I trust you may be able to find room in the columns of THE LANCET for ventilating this question, and oblige,

Your obedient servant,

July 10th, 1888. FREDK. H. ALDERSON, M.D.

THE MOTHERS' LYING-IN HOME, SHADWELL.

IN our short notice last week (p. 15) of the annual meeting of this institution we inadvertently attributed the founding of the home to Mrs. Ashton Warner, who writes to say that the credit of that work is due to Lady Greville.

Mr. T. Lafan (Cashel).—Mr. Jessop's letter in THE LANCET of May 12th is probably the communication referred to by our correspondent.

HARVEST BUMPS.

To the Editors of THE LANCET.

SIRS,—In 1884 several letters appeared in the columns of THE LANCET during the autumn as to the prevention of the attacks of the insects that produce harvest bumps, which interfere so much with the happiness of children, and even of adults, who live in the country. I have carefully tried all of the practicable remedies suggested in those letters without success. It is a mistake to employ any greasy or oily application; for the use of such makes the skin hot and uncomfortable in summer weather. Is there no means of preventing the attacks of this insect?

I am, Sirs, your obedient servant,

July, 1888. RUSTIC.

THE JEFFRIES AND HILLS CASE.

To the Editors of THE LANCET.

SIRS,—Will you permit me to once more call attention to this most deserving case? If only 5 per cent. of the medical men who are every day in peril of a similar misfortune to that which happened to Messrs. Jeffries and Hills would subscribe 5*s.* each, the balance required would be subscribed twice over.—I am, Sirs, yours obediently,

C. B. KEETLEY.

10, George-street, Hanover-square, W., July 12th, 1888.

THE APOTHECARIES ACT.

R. T. M. sends us a copy of a "bill of account" sent in by a herbalist to a man who is now a patient of our correspondent, and inquires if the herbalist, having threatened legal proceedings in order to enforce payment, can recover, and whether the Apothecaries Act has been infringed by the herbalist. The following is the reply of Mr. Upton, to whom we submitted the queries:—

"Society of Apothecaries, Blackfriars, London, E.C.,

"July 11th, 1888.

"SIRS,—My opinion on the letter and account which you submitted to me, and which I return herewith, is that the person referred to in the letter would be unable to recover in respect of his account, the fact of his not being registered under the Medical Act, 1858 or 1886, being a good defence thereto. If 'T. C. M.' had prescribed, in addition to supplying medicine, and if the case had been one of a disorder requiring purely *medical* (as distinguished from *surgical*) treatment, which from the bill it does not seem to have been, the provisions of the Apothecaries Act would have been infringed.

"I am, Gentlemen, your obedient servant,

"The Editors of THE LANCET." "JAMES RICHARD UPTON.

Dr. W. Lillie (Kansas).—The facts stated by our correspondent are well known to those interested in vision and optics, and many interesting facts of a similar character may be found in the earlier volumes of the Guy's Hospital Reports by Mr. Towne. The conclusions drawn by our correspondent, except in regard to the superior oblique muscle, are those generally accepted.

An Old Subscriber (Manchester) is referred to our advertising columns.

"LINKED BEATS."

To the Editors of THE LANCET.

SIRS,—In connexion with the case of allorrhythmia contributed to THE LANCET of July 1st, I think the following case, which I met with at the North-West London Hospital, and which struck me much at the time, might be interesting.

The patient was a healthy-looking girl of about twenty. She was evidently excessively excited, trembling all over. On feeling the pulse, to my surprise I found it rather below normal in rate—i.e., about sixty; but on listening to the heart I heard double the number of beats as I had felt pulses, a loud and low beat alternating. On again feeling the pulse I could detect very weak beats alternating with the strong ones formerly felt. I sent for the house surgeon, Dr. Willey, who in a few minutes brought me a quite ordinary pulse tracing. In fact, the excitement of the patient having subsided, her circulation had quieted down to a normal condition. I found nothing amiss with the patient, except this excessive excitability, and I soon lost sight of her.

This case seems interesting as showing that the linked beat may be produced by pure excitement. Dr. Henry Handford points out that excitement restored the normal rhythm in his case; but here we have a heart depressed by slight digitalis poisoning. It would thus appear that this peculiar rhythm may be produced by either condition—depression or excitement of the heart's action.

I am, Sirs, yours faithfully,

London, July 4th, 1888. THOS. GLOVER LYON.

THE CATERPILLAR PEST.

A KENTISH farmer has, it appears, been making an investigation into the cause of the plague which has been devastating the fruit crops in the "garden of England," and, according to the *Kentish Observer*, has arrived at the conclusion that "the spawn which produced the caterpillars was deposited by the swarms of butterflies which swept our coasts last autumn, and which were supposed to have been driven over from the continental forests by the storms."

Juventus.—Taking the facts as our correspondent states them, we consider that he was treated with scant courtesy; but we doubt if he could make any legal claim. It is usual for the coroner to call in the doctor who first saw the deceased after the accident; but it is entirely a matter within his discretion.

Variola.—If our correspondent's services were obtained by the borough surveyor through a medical agent, he (the surveyor) was, we think, liable for the fee. If, however, the fee charged by the agent was for procuring the appointment, "Variola" could hardly expect the fee to be paid by the surveyor or auditor.

F. R.—We cannot identify the article referred to.

UTILISATION OF HOUSE-TOPS.

To the Editors of THE LANCET.

SIRS,—In reference to an article in your last issue (p. 32) on "A New Idea in Housebuilding," will you allow me to remind your readers that in 1863 I published in the *Builder* suggestions and designs for the conversion of the tops of houses into private airing grounds for the benefit of the health of the inhabitants, and exhibited models and plans of these designs at the National Club, Whitehall, and that before I left London I deposited these plans and models in the Parkes Museum.

I am, Sirs, yours faithfully,

Bournemouth, July 7th, 1888. HORACE DOBELL.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir James Paget, London; Dr. W. S. Playfair, London; Sir W. Mac Cormac, London; Dr. Squire, London; Dr. Minis Hays, Philadelphia; Dr. G. Hay, Pittsburg; Dr. Cullimore, London; Dr. Griffiths, London; Mr. Cecly, Cambridge; Mr. W. Marston, Leeds; Messrs. Waterlow and Sons, London; Mr. Charpentier, Uxbridge; Messrs. Griffin and Co., London; Mr. Shirtliff, Kingston-on-Thames; Messrs. Burroughs and Wellcome; Mr. Pullen, Bradford; Mr. Grün, Putney; Dr. Horace Dobell, Bournemouth; Dr. Greene, Peckham; Dr. Pearse, London; Dr. O. Sturges, London; Mr. C. J. Wright, Leeds; Mr. Sutton, Catford; Mr. Buss, Leominster; Dr. R. Barnes, London; Dr. Huggins, Toulouse; Surgeon-Major Boileau; Dr. Kirk, Partick; Mr. Murray, Liverpool; Mr. Holt, London; Mr. Hornibrook, London; Mr. Grier, Hirwain; Mrs. Turner, Bewdley; Mr. Hopwell, Notts; Mr. Boyce, Salop; Mrs. Coste, London; Mr. Balding, Herts; Messrs. Waller and Gaitskell, Sydenham; Mr. W. H. Brown, Mapfra, Vic.; Mr. Tom Bird, London; Mr. Goodfellow, Hatherlow; Mr. H. H. Thompson, London; Mr. N. W. Meadows, London; Mr. Schroff, Bombay; Mr. J. Place, Mansfield; Dr. Belliary, Paris; Mr. Okell; Mr. Leynd, Bournemouth; Dr. Biddle, Kingston; Mr. H. Cripps, London; Mr. Jerrett, Hayle; Mr. F. Lane; Mr. W. à Beckett; Mr. R. Harrison, Liverpool; Dr. Caton, Liverpool; Mr. C. Owen, Cheltenham; Mr. Boyce, Norfolk; Mr. Hallett, Bath; Dr. Mason, Whitwell; Messrs. Hilliard and Sons, Glasgow; Mr. Hetherington, Newcastle; Mr. Latham, Ann Arbor; Mr. McGowan, Bradford; Mr. Walker, Spondon; Dr. Page, Newcastle-on-Tyne; Mr. S. Hardwick, Bournemouth; Mrs. Ashton Warner, London; Mr. Heygate, Bath; Messrs. Wright, Layman, and Umney, London; Mr. Symes, Halifax; Mr. O'Brien, Mere; Mr. Lawson Tait, Birmingham; Dr. Cullingworth, London; Dr. F. H. Alderson, London; Capt. Hincks, London; Mr. Corkhill, Matlock; Mr. Holman, London; Mr. Coghill, Birmingham; Mr. Thompson, Ulverstone; Mr. Keetley, London; Juventus; X. Y., Leeds; M.D., Suffolk, Lady Superintendent, Sheffield; J., London; F.R.C.S.; Enquirer; Pour y Parvenir; J. A. R., Liverpool; Sanatorium, London; Medicus, London; Ælkrad; Rustic; R. T. M.; M. N. R., London.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Barlow, Manchester; Dr. Somerville, Swanage; Dr. Harris; Mr. Groves, Dorchester; Miss Davys, Somerset; Mr. Le Good, Norwich; Dr. Pope, Eardisley; Mr. Diggins, Lancaster; Mr. Fuge, Taunton; Mr. Morgan, Belfast; Mr. Lewis, Kent; Mr. Smyth, Canada; Messrs. Maw, Son, and Co., London; Mr. Stilliard, Birmingham; Messrs. Weiss and Son, London; Mrs. Pratt, Hants; Major Pead, Dulwich; Mr. Frost, London; Mrs. Morice, Aberdeen; Mr. Hicks, Hendon; Mr. Taylor, Lincolnshire; Mr. Coleman, Neath; Mr. Lewis, London; Mr. Owen, Wrexham; Dr. Dowding, Haughley; Mr. Atkins, Luton; Mr. Wormald, Manchester; Mr. Heywood, Manchester; Mr. Boorman, Tenterden; Mr. Stenhouse, Glasgow; Mr. Bickerton, Fawley; Messrs. Oetling and Co., Manchester; Mr. Symond, Devon; Messrs. Oppenheimer Bros., London; Mr. Mainwaring, London; Dr. Fontis, Northumberland; Mr. Holloway, Somerset; Mr. Leggatt, Sandwich; B., London; M.D., London; Spes, London; Omega, London; Warwick County Lunatic Asylum; Francis, Erith; Tenens, London; Monsall Fever Hospital; Nemo, London; Doctor, Sheffield; A. P. Y., London; Lady Superintendent, London; E. W. P., Herts; Rotheln, London; Manx Practice, London; G. B., Liverpool; Dentist, Willesden; Ancoats Hospital; Andromache, London; Strathmore, London; Medicus, Middlesex; H., Farnboro'; Alfredus, London; M., London; M.D., King's-cross; Iota, London; Veritas, London.

Alliance News, *The Speculum* (Melbourne), *Scottish Leader*, *Windsor and Eton Express*, *Royal Gazette* (Georgetown, British Guiana), *Bridgend and Neath Chronicle*, *Surrey Advertiser*, *Reading Mercury*, *Portobello Advertiser*, *City Press*, *Bristol Mercury*, *Hull Daily Mail*, *Herald and Weekly Free Press*, *Invergordon Times*, *&c.*, have been received.

Medical Diary for the ensuing Week.

Monday, July 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, July 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

Wednesday, July 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.

Thursday, July 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, July 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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ADVERTISING.

Books and Publications (seven lines and under)	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Every additional Line	0 0 6
Front Page	0 1 0 per Line
Quarter Page	1 10 0
Half a Page	2 15 0
An Entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

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